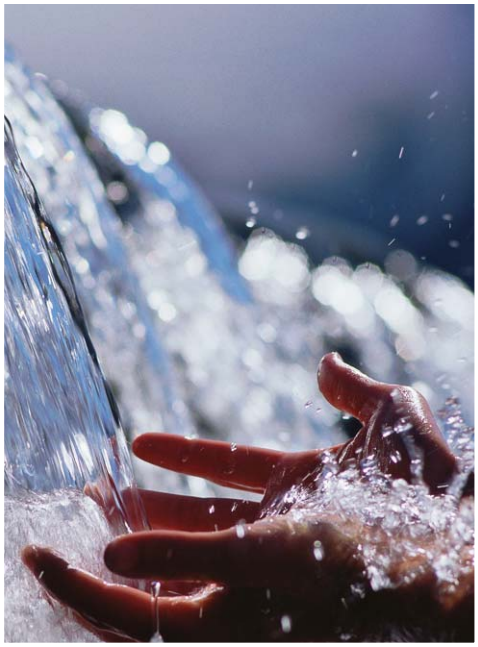
Response to Comments Document

EBMUD WATER TREATMENT AND TRANSMISSION IMPROVEMENTS PROGRAM

Final Environmental Impact Report
SCH # 2005092019

East Bay Municipal Utility District

November 2006

ESA

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1. Introduction

CHAPTER 1
Introduction

1.1 Purpose of the Final Environmental Impact Report

This report has been prepared to accompany the draft environmental impact report (DEIR) for EBMUD's Water Treatment and Transmission Improvements Program (WTTIP). The DEIR identified the environmental consequences associated with construction and operation of potential alternatives identified by EBMUD, and recommended mitigation measures to reduce significant and potentially significant impacts. This document responds to the comments on the DEIR and makes revisions to the DEIR, as necessary, in response to these comments. Together with the DEIR, this document constitutes the Final EIR for the project.

The Final EIR is an informational document prepared by the lead agency that must be considered by decision-makers before approving or denying a proposed project. California Environmental Quality Act (CEQA) Guidelines (Section 15132) specify the following:

> The Final EIR shall consist of:
>
> (a) The Draft EIR or a revision of the draft.
>
> (b) Comments and recommendations received on the Draft EIR, either verbatim or in summary.
>
> (c) A list of persons, organizations, and public agencies commenting on the Draft EIR.
>
> (d) The responses of the lead agency to significant environmental points raised in the review and consultation process.
>
> (e) Any other information added by the lead agency.

This document has been prepared pursuant to the CEQA Guidelines.

1.2 Environmental Review Process

On June 23, 2006, EBMUD (lead agency) released the EBMUD Water Treatment and Transmission System Program DEIR for public review (State Clearinghouse No. 2005092019). The public review and comment period on the DEIR began on June 23, 2006 and closed on September 18, 2006. The EBMUD Board of Directors anticipates certifying the Final EIR (a finding that the EIR complies with the requirements of CEQA) at a regularly scheduled Board meeting in late 2006. Following EIR certification, EBMUD may proceed with consideration of project approval actions.

1.3 Report Organization

Chapter 2 of this document contains copies of comments received during the comment period and responses to those comments. Each comment is numbered in the margin of the comment letter, and the responses to all of the comments in a particular letter follow that letter. The comments are referenced alphanumerically by letter and comment number; the comment letters are coded with the initials of the commenter or agency/organization acronym. For example, the first comment in the letter from the California Department of Toxic Substances Control is DTSC-1. Where a response includes a change to the text of the DEIR, a reference is made to Chapter 3, which contains corrections and clarifications made to the DEIR text.

Some issues were raised in numerous comments. As a result six master responses addressing these comments are included in Section 2.1 of this Response to Comments document. The master responses are listed below:

- 2.1.1 Master Response on Program- and Project-Level Distinctions
- 2.1.2 Master Response on Benefits to Orinda
- 2.1.3 Master Response on EBMUD Obligations to Comply with Local Ordinances, Obtain Local Agency Approvals and Permits, and Pay Local Agency Fees
- 2.1.4 Master Response on the Need for and Alternatives to Happy Valley Pumping Plant and Pipeline
- 2.1.5 Master Response on Social and Economic Costs
- 2.1.6 Master Response on New Leland Pressure Zone Reservoir Alternatives

The following is a list of all persons and organizations that submitted comments on the DEIR during the comment period:

Letter Code	Commenter
State Agencies	
SCH	Terry Roberts, Director, State Clearinghouse, Governor's Office of Planning and Research
DTSC	Marc Piros, PE, Unit Chief, Northern California Coastal Cleanup Operations Branch, Department of Toxic Substances Control
Cities and Local Agencies	
C3FC	Tim Jensen, Associate Civil Engineer, Flood Control Engineering, Contra Costa County Flood Control & Water Conservation District
CCCSD	Russell B. Leavitt, AICP, Engineering Assistant III, Contra Costa County Sanitary District
EBMUD_NR	EBMUD Natural Resources Staff, East Bay Municipal Utility District
LAF	Steven Falk, City Manager, City of Lafayette
MOR	Jill Mercurio, Public Works Director / Town Engineer, Town of Moraga
ORIN	Robert Perlmutter and Kevin P. Bundy, Shute, Mihaly & Weinberger LLP, for the City of Orinda
WC	Rachel Lenci, Engineering Services Manager, City of Walnut Creek

Letter Code	Commenter
Individuals and Businesses	
AH	Adam Henderson
AL	Adam Lyon
AR	Alfred J. Rothman
AS	Ann Sharf
BB	Barry Bennett
BJT	Betty Barsamian Teman and Joseph Teman
BM	Bruce A. Macler
BS	Barry M. Sweedler
BV	Bruce Van Voorhis
BW	Brandt Williams
BW1	Brandt Williams
BW2	Bonnie Wixson
CA	Carl H. Arvold
CAOF	Janet S. Cobb, President, California Oak Foundation
CB	Carol Ann Barber
CC	Charlotte L. Cairney
CN	Cheryl Nevares
CV	Chris Valle-Riestra
DCAY	David Chen and Ann Yang
DG	Dave V. Giri
DGB	Donald and Gene Bozorth
DJB	David and Joyce Burke
DM	Diana MaKieve
DMA	David and Marney Ackerman
DR	David L. Richardson, PE
DS	Dana Dumas Sankary
EE	Ed Elkins
EP	Ed Presten
FAP	Felix and Anne Pallavicini
GA	Greg Alioshin
GA1	Greg Alioshin
GF	Grant W. Fine
GF1	Gail Ford
GH	Gayle Hirschfeld
GN	Greg Norman
GP	Gerald Perry
HME	Heinz and Martha Egensperger
HOA	Freeman Road Homeowners Association Petition
JB	Jack Behseresht, Sugarloaf Homeowners Association
JC	Jim Cervantes, Board Member, Sleepy Hollow Homeowners Association

Letter Code	Commenter
JF	Joyce Leavitt Fine
JM	James Murphey
JV	Joan von Kaschnitz
JW	John L. Walkinshaw
KH	K. Houlahan
KH1	Kim Henderson
KL	Kelly Lemon
KL1	Kaisa Lyon
KL2	Kaisa Lyon
KS	Kyle Simonse
KLLJS	Schonborn Family
KR	Kathy Rogers
KS	Kyle Simonse
LG	Linda C. Guerra
LH	Larry Hayden
LL	Lynn Lopez
LS	Lauren Simonse
MB	Marielle J. Boortz
MB1	Matt Broback
MC	Margo Connolly
MJ	Mike Johnson
MJN	Mary and Jim Neighbor
MK	Mickey Karlinsky
MKP	Mike and Karen Perry
MM	Matthew P. Moran
MMM	Michael and Mary Moran
MP	M.L. Pinkard
MP1	Michael Pecar
MT	Marc Trapani
PA	Pauline M. Angell
PC	Peter K. Clark
PJ	Philip Jensen et al
PM	Paula E. Malcom
RC	Rebecca Christensen
RC1	Rebecca Christensen
RCW	Daniel A. Muller, Morgan Miller Blair, for Robert and Clarita Wooldridge
RCW1	Robert and Clarita Wooldridge
RJ	Robin Jones
RL1	Richard D. Lee
RR	Richard L. Ronnow, PE
RS	Richard Sypriano

Letter Code	Commenter
RSY	Richard and Susan Yau
SB	Stacey Bradbury
SD	Sandra J. Denny
SJ	Susan JunFish
SMR	Sally and Michael Rubinstein
SMR1	Sally and Michael Rubinstein
SP	Stephen Phillips
TB	Terry Blair
TB1	Tracy Broback
TJ	Toris A. Jaeger
TJK	Thomas P. and Jahanna M. Knight
TS	Todd Simonse
TU	Ted Urban
VC	Vince Carrillo
VEEC	Carton Family
WBP	William and Betty Peterson
WEH	William and Elizabeth Haughey
WG	William Greif
WJC	Wayne and Jo Alice Canterbury
WJC1	Wayne and Jo Alice Canterbury

Chapter 3 of this document contains changes and additions to the DEIR text. An expanded section of text is included for two projects where the site proposed for approval differs from that presented as "preferred" in the DEIR: Highland Reservoir and Pipelines and Happy Valley Pumping Plant and Pipeline.

1.4 Highland Reservoir and Pipelines

A revised Highland Reservoir site has been developed and analyzed in response to comments concerning loss and damage to protected trees associated with the site identified as the preferred in the DEIR. Measure 3.6-1a in Section 3.6 Biological Resources has been revised to incorporate the revised site. Section 3.3 of this Response to Comments document contains a description and analysis of impacts for the Revised Highland Reservoir site. Additional graphics for this site can also be found in this section.

The following nomenclature is used to discuss sites associated with the Highland Reservoir and Pipelines project:

- DEIR Proposed Highland Reservoir Site – the site presented as the preferred site in the DEIR (described in Chapter 2 Project Description).

- DEIR Alternative Highland Reservoir Site – the site presented as an alternative under consideration in the DEIR (described in Chapter 6 Alternatives).

- Revised Highland Reservoir Site – the site presented in Section 3.3 of this Response to Comments document which is being proposed for approval as part of the FEIR.

1.5 Happy Valley Pumping Plant and Pipeline

In the DEIR, the proposed location for the Happy Valley Pumping Plant is on Lombardy Lane (DEIR p. 2-2-74 *et seq*), and the alternative site evaluated for this facility is on Miner Road near Camino Sobrante (DEIR p. 6-33 *et seq*). The owners of the Lombardy Lane parcel are not willing to sell their property to EBMUD (see **Comment RCW-1**), whereas the owner of the alternative site is receptive to discussing the sale of a portion of his property (see **Comment TU-2**). As stated on DEIR p. 6-2, the EBMUD Board of Directors may adopt an alternative site analyzed in the EIR in lieu of the WTTIP as proposed. Accordingly, District staff is recommending that the Board of Directors approve the alternative site for the Happy Valley Pumping Plant. EBMUD has prepared additional design information and supplemental environmental analyses on the alternative site because (a) the alternative site could be obtained from a willing seller and therefore is more desirable to EBMUD, (b) residents living near the alternative site have requested additional information, and (c) there has been a change in the construction characteristics of the Happy Valley Pumping Plant alternative (namely, that numerous trees along Miner Road could, in fact, be preserved). The information in Section 3.4 of this Response to Comments document amplifies the analysis of the Happy Valley Alternative site that was presented in DEIR Chapter 6 and includes information indicating that environmental impacts will be not be more adverse than those previously identified. Additional graphics for this site can also be found in Section 3.4.

The following nomenclature is used to discuss sites associated with the Happy Valley Pumping Plant and Pipeline project:

- DEIR Proposed Happy Valley Pumping Plant site – the site presented as the preferred site in the DEIR (described in Chapter 2, Project Description).

- Happy Valley Pumping Plant Alternative site – the site presented as an alternative under consideration in the DEIR (described in Chapter 6, Alternatives).

2. Comments and Responses

2.1 Master Responses

2.1.1 Master Response on Program- and Project-Level Distinctions

Commenters raised questions about the program/project level distinctions in EBMUD's Water Treatment and Transmission Improvements Program (WTTIP). This Master Response focuses on issues concerning the adequacy of the program-level analysis and appropriateness of the program- versus project-level analytic approach raised in comments on the DEIR and the project, and responds to all or part of the following comments:

ORIN-19	ORIN-22	WC-6	AS-1	RCW-8
ORIN-20	ORIN-23	WC-7	CB-1	
ORIN-21	WC-5	DJB-1	BM-5	

The WTTIP EIR serves as both a program and a project EIR for the WTTIP, which is proposed upgrades to the water treatment and transmission system encompassing different elements throughout a large section of EBMUD's service area. (DEIR Sections S.3.1, 2.13, and 3.1.4.) As a *program* EIR, the WTTIP EIR evaluates, to the extent feasible, the environmental impacts of certain improvements that will be carried out in pursuit of common objectives. (See CEQA Guidelines §15168.) Until it is known whether or how EBMUD will proceed with these elements, project-level review is inappropriate and would be speculative. This is the reason they are discussed programmatically. These elements will undergo additional environmental review when they are ready for implementation. (See DEIR Sections S.3.1, S.6, 2.7, 3.1.4.) The advantage of this approach is to allow earlier and more comprehensive evaluation of all elements of the WTTIP, even though the implementation of some elements may depend upon a number of factors which cannot be estimated with certainty at this time. As a *project* EIR, the WTTIP EIR evaluates at a greater level of detail the environmental impacts of those elements of the WTTIP for which implementation is presently being considered and for which EBMUD anticipates that no further environmental document will be required under CEQA, following certification of the WTTIP EIR by the EBMUD Board of Directors. (See DEIR Sections S.3.1, S.6, and 3.1.4.)

By including the program-level elements along with the project-level elements in the WTTIP EIR, EBMUD has provided the public and the EBMUD Board of Directors with an opportunity to review and consider the reasonably foreseeable environmental impacts of the WTTIP as a whole, prior to Board decisions on any portion of the program. In doing so, EBMUD is fulfilling two important goals of the CEQA process: (1) providing for environmental review and long-range planning disclosure at the earliest feasible time, and (2) avoiding "piecemeal" review that could underestimate the environmental impacts of a project as large, and complex as the WTTIP. EBMUD is also identifying issues of concern to agencies and other interested persons early in the review process to help scope subsequent environmental documentation on program-level elements. This is consistent with CEQA Guidelines §15168 which allows for lead agency to prepare a program EIR on a series or group of actions that are carried out in this manner.

EBMUD's intent is to present to the public, as early in the planning process as possible, a comprehensive understanding of how the individual system improvements that may be necessary

in their areas fit into EBMUD's water treatment, storage, and distribution operations. This is consistent with both the spirit and letter of CEQA, which calls for EIRs to "be prepared as early as feasible in the planning process" to consider the "whole of the action," and to provide a "good faith effort at full disclosure." (See CEQA Guidelines §§15004(b), 15003(h)-(i)).

As noted above and at the public meetings, the improvements discussed at a program level will not be implemented by EBMUD without further environmental review under CEQA once a determination regarding implementation of these improvements is made and the resulting design is known. The WTTIP EIR is therefore properly a program EIR from which EBMUD will "tier" its later environmental review of specific activities that may be implemented as part of the WTTIP, if certain factors are present in the future. (See DEIR Section S.3.1.)

Some comments have raised concerns that the activities evaluated at a program level in the DEIR are not "programs" within the meaning of the CEQA Guidelines. It is important to distinguish the overall program addressed in the DEIR—improving the EBMUD water treatment and transmission system—from the individual improvement elements that are discussed at a programmatic level. The program-level elements are just that: elements of the WTTIP discussed at a programmatic level. The WTTIP resulted from earlier studies and plans[1] to address water treatment, transmission and storage needs, primarily in the Walnut Creek/Lamorinda area. In this case, the actions discussed at a programmatic level in the EIR are part of a series of actions that can be characterized as one large project and, overall, are parts of a chain of contemplated actions that will result in improvements to the EBMUD system for treating and delivering water. The WTTIP is quite large (involving actions at 5 water treatment plants and 19 related actions), and the elements involved are related improvements to EBMUD's drinking water transmission and distribution system. (DEIR at §§ S.2, S.3, 2.2, 2.7.) The use of the term "program" in relation to certain elements is not being invoked as an excuse for less detailed analysis of projects, but rather is part of EBMUD's effort to provide its customers, other members of the public, and EBMUD's Board as comprehensive a view as possible of the water system, necessary improvements and ways of implementing those improvements over an extended period of time.

The WTTIP EIR is consistent with the tiering principles in CEQA. It also follows an approach that has been used for other complex water projects to accommodate the unique nature of these projects. In this document, EBMUD has analyzed the environmental impacts of the treatment and transmission system improvements, including the elements discussed at a programmatic level, with as much specificity as is feasible – that is, to the extent such impacts are reasonably foreseeable and non-speculative at this time. Mitigation measures for such impacts are also included where appropriate and feasible at this stage. With respect to the program-level elements, this analysis may be found in the DEIR on the following pages:

- Pp. 2-40, 2-44 through 47, 2-50, 2-61, 2-85 through 87 (describing activities);
- Pp. 3.2-19 through 22 (analysis and mitigation of land use impacts);

[1] The projects were originally identified as part of EBMUD water facilities planning efforts, namely the Water Treatment and Transmission Master Plan, Lamorinda Water System Improvements Program Facilities Plan, and the pressure zone planning studies for the Walnut Creek/Lamorinda area. See DEIR pp. 2-89 and 2-90 for full references.

- Pp. 3.3-48 through 50 (analysis and mitigation of visual quality impacts);
- Pp. 3.4-33 through 36 (analysis and mitigation of geology, soils, and seismicity impacts);
- Pp. 3.5.46 through 51 (analysis and mitigation of hydrology and water quality impacts);
- Pp. 3.6-70 through 79 (analysis and mitigation of biological resource impacts);
- Pp. 3.7-32 through 35 (analysis and mitigation of cultural resource impacts);
- Pp. 3.8-23 through 26 (analysis and mitigation of traffic and circulation impacts);
- Pp. 3.9-33 through 35 (analysis and mitigation of air quality impacts);
- Pp. 3.10-51 through 56 (analysis and mitigation of noise and vibration impacts);
- Pp. 3.11-38 through 41 (analysis and mitigation of hazards and hazardous materials impacts);
- Pp. 3.12-21 through 22 (analysis and mitigation of public services and utilities impacts);
- Chapter 4 (growth-inducement potential and secondary effects of WTTIP project, including all program-level elements);
- Chapter 5 (cumulative impacts of WTTIP project, including all program-level elements).

For all of the elements discussed at a programmatic level, the WTTIP EIR is not the final environmental document. Additional environmental review by EBMUD, as well as approval by the EBMUD Board, will take place prior to issuance of any design and/or construction contracts for program-level WTTIP elements (see DEIR Section 2.7). At the time of this subsequent environmental review, EBMUD will undertake a more specific and detailed analysis of impacts, in compliance with CEQA. (DEIR Sections S.3.1, S.6, 2.7, 3.1.2, 3.1.4.).

2.1.2 Master Response on Benefits to Orinda

Based on the presence of Orinda WTP and the improvements proposed to the plant, numerous comments questioned the extent to which the City of Orinda will benefit from implementation of the WTTIP as a whole, and in particular with respect to specific projects proposed within Orinda. This responds to all or part of the following comments:

ORIN-2	ORIN-3	ORIN-6	ORIN-9	ORIN-119	AS-2
AS-3	BM-3	BV-1	BW1-7	BW1-17	CA-13
CB-2	CB-3	DJB-2	DJB-10	DS-2	DS-10
KLLJS-2	RCW-4	RCW-9	RJ-2	VC-3	VEEC-3

This response addresses the following:

- General Benefits Associated with the WTTIP
- Benefits to Orinda from the Orinda WTP
- Benefits to Orinda from the Ardith Reservoir
- Benefits to Orinda from Improvements to the Donald Pumping Plant
- Benefits to Orinda from WTTIP Projects Located Outside the City of Orinda

Regarding the Happy Valley Pumping Plant, please refer to Section 2.1.4, Master Response on the Need for and Alternatives to the Happy Valley Pumping Plant.

General Benefits Associated with the WTTIP

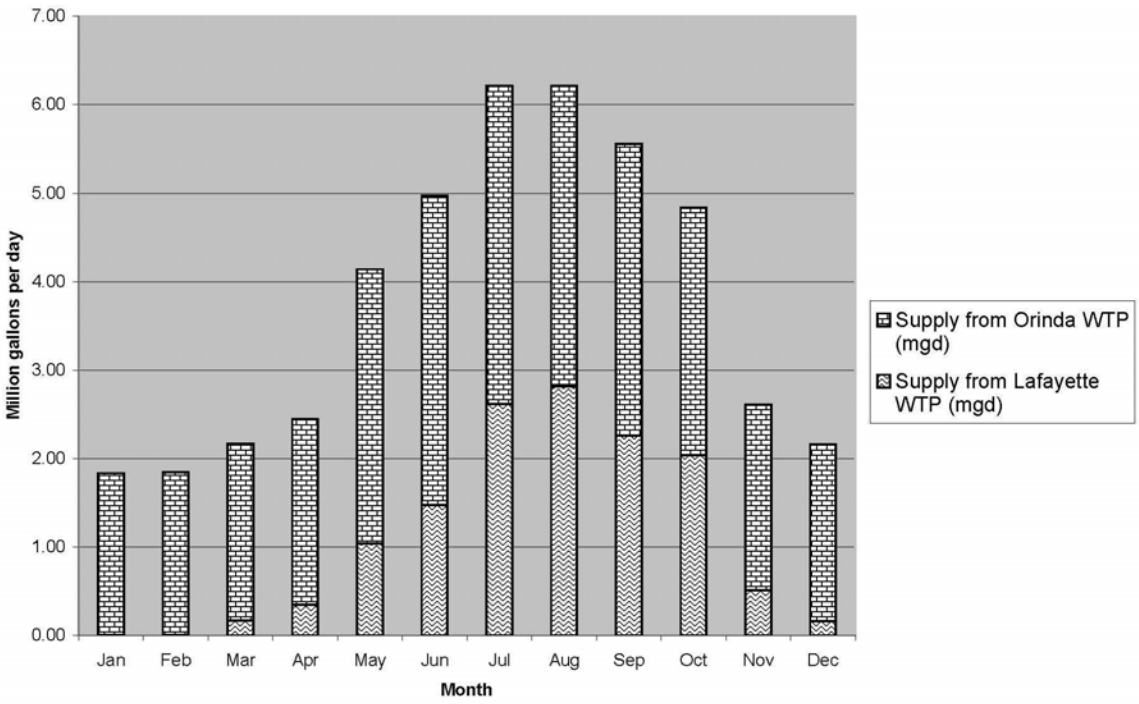
The overall benefits of the WTTIP are described briefly on DEIR p. 2-23. All of the WTTIP improvements would make the EBMUD system more reliable, which would benefit all District customers. The improvements to address existing capacity deficiencies, to meet projected increases in demand, and to address existing hydraulic constraints and aging infrastructure would benefit customers in the Lamorinda/Walnut Creek area by ensuring that supplies continue to meet demand. These improvements would also maintain or increase the amount of water available for firefighting during warm weather and reduce pressure fluctuation problems. Water quality benefits specifically associated with proposed improvements at the Orinda WTP and the Ardith and Moraga Reservoirs are discussed below.

Benefits to Orinda from the Orinda WTP

Communities Receiving Water from the Orinda WTP

The bar graph (Figure 1) on the next page indicates the quantity of water provided to customers in Orinda[1] by the Lafayette WTP and the Orinda WTP on a monthly basis. As the graph indicates, depending on the time of the year, the City of Orinda receives between 60 percent and 100 percent of its treated water supply from the Orinda WTP. A small portion of the treated water

[1] Includes the Bryant Pressure Zone and Bryant Pressure Zone Cascades.



EBMUD WTTIP ▪ 204369

Figure 1
Typical City of Orinda Water Supply

produced at the Orinda WTP during the summer serves the Lamorinda area, and during the winter months, all of the Lamorinda area is served by the Orinda WTP.

Benefits to Orinda from Improvements at the Orinda WTP

Proposed improvements at the Orinda WTP would directly benefit Orinda residents during the months when that WTP serves Orinda.

The project-level improvements at the Orinda WTP would improve the recovery of the backwash water produced in the water treatment process. Treating the backwash water and returning the water to the head of the water treatment plant would eliminate discharges that are potentially harmful to aquatic species in San Pablo Creek, improving water quality in a natural stream within the City of Orinda. The high-rate sedimentation basins, ultra-violet light system, chlorine contact basin and clearwell included at the program level would also improve the water quality and reliability of the treated water at the plant and therefore the quality of water served to the citizens of Orinda, as well as the citizens of a large part of the EBMUD service area.

Benefits to Orinda from the Ardith Reservoir

The new Ardith Reservoir would benefit those who rely on the existing Moraga Reservoir for their water supply. This is the area of Moraga and southern Orinda between 450 and 650 feet elevation.

As described on DEIR p. 2-67, the new 2.0 mg Ardith Reservoir is required in order to replace the existing Moraga Reservoir. The Moraga Reservoir serves Moraga and southern Orinda between the elevations of 450 feet msl and 650 feet msl (the southern portion of the Bryant Pressure Zone). The open-cut Moraga Reservoir has a liner design that is prone to leakage. Although there is no significant leakage occurring at the Moraga Reservoir, this type of liner design (referred to as "panel craft") has been known to leak, requires special maintenance, and must eventually be removed from service. The Ardith Reservoir must be brought on line (in addition to improvements in treatment production and pumping capacity and Moraga Pipeline) to provide water to customers currently served by the Moraga Reservoir before the latter can be replaced.

Benefits to Orinda from Improvements to the Donald Pumping Plant

The new Donald Pumping Plant would benefit those who rely on the existing Donald Pumping Plant for their water: customers in Moraga and Orinda south of Highway 24.

The existing Donald Pumping Plant (at the site proposed for the Ardith Reservoir) would be relocated to a lower elevation at the same site. The Donald Pumping Plant supplies water from the Bryant Pressure Zone to the Baseline Pressure Zone. There are some pressure problems with the existing pumping plant that currently constrain its operation. In addition, the elevation of the existing pumping plant is too high and the pumping plant does not have adequate inlet pressure during summertime demand periods. Relocating the Donald Pumping Plant to a lower elevation at the site and reconfiguring its pumping operations would provide additional inlet pressure to the pumping plant.

Benefits to Orinda from WTTIP Projects Outside of Orinda

The water facilities serving Orinda are in many locations outside the City, and extend eastward to the Pardee Reservoir in the Sierra foothills. Numerous WTTIP improvements that are not located within the City of Orinda's boundaries would directly benefit Orinda. The most obvious example is proposed improvements to the Lafayette WTP under Alternative 1. Other examples follow:

Project	Who Benefits
Glen Pipeline Improvements	Residences between 650 and 850 feet elevation south of Happy Valley Road and on Happy Valley Road.
Moraga Road Pipeline	Residences between 450 and 650 feet elevation in Moraga and southern Orinda.
Moraga Reservoir	Residences between 450 and 650 feet elevation in Moraga and southern Orinda.
Sunnyside Pumping Plant	Residences between 850 and 1,050 feet elevation in Orinda and parts of Lafayette south of Miner Road and north of Highway 24, and another area north of Sundown Terrace.

2.1.3 Master Response on EBMUD Obligations to Comply with Local Ordinances, Obtain Local Agency Approvals and Permits, and Pay Local Agency Fees

A number of commenters have requested that the District consider all local agency permit and other requirements. The following discussion explains the District's standing practice with respect to coordinating with local agencies within whose boundaries EBMUD projects are proposed, as well as EBMUD's legal obligations to obtain local approvals for its water projects.

This Master Response focuses on those issues and responds to all or part of the following comments:

ORIN-27	ORIN-62	LAF-3	MOR-12	WC-64	RS-7
ORIN-41	ORIN-63	LAF-11	MOR-13	VEEC-5	MJ-4
ORIN-43	ORIN-93	MOR-2	WC-9	C3FC-1	DTSC-4
ORIN-44	ORIN-98	MOR-3	WC-26	C3FC-2	CCCSD-1
ORIN-48	ORIN-106	MOR-5	WC-36	C3FC-3	
ORIN-52	ORIN-118	MOR-6	WC-48	C3FC-4	
ORIN-53	ORIN-138	MOR-10	WC-53	C3FC-8	
ORIN-60	ORIN-154	MOR-11	WC-54	C3FC-12	

As noted in the DEIR (p. 3.2-12), it is EBMUD's long-standing practice to work closely with host jurisdictions and the neighborhood community during project planning and to conform to local land use plans and policies to the extent possible. In furtherance of this practice, EBMUD has held or attended numerous public meetings in the project area during the WTTIP planning process. These have included city council meetings and workshops, design review board meetings, and meetings with local homeowner's groups and committees. EBMUD has also met on a number of occasions with local agency representatives and elected officials throughout the planning process. These meetings have involved EBMUD staff at all levels as well as EBMUD Board members.

As the WTTIP project proceeds, EBMUD will continue to consult with local entities on issues, including design, road closures and work hours. A new mitigation measure (Measure C-7) has also been added to ensure regular, ongoing notification and communication with local jurisdictions (see **Response ORIN-111**). To further local agency coordination, EBMUD also typically assigns a community affairs representative to projects.

It should be noted, however, that California Government Code section 53091(d) specifies that "Building ordinances of a county or city shall not apply to the location or construction of facilities for the production, generation, storage, treatment, or transmission of water, wastewater, or electrical energy by a local agency." Subsection (e) further states that "Zoning ordinances of a county or city shall not apply to the location or construction of facilities for the production, generation, storage, treatment, or transmission of water...." Consequently, the District is not

subject to certain local ordinances and permit requirements. Nonetheless it is EBMUD's practice to always coordinate closely with host jurisdictions and the neighboring community during project planning, and to implement its projects consistent with local requirements and in the interest of minimizing any adverse environmental effects, to the extent feasible.

EBMUD will obtain encroachment permits from local agencies for projects that involve substantial work in public roadways and will comply with reasonable conditions that are incorporated into those permits. Moreover, while EBMUD is not required to pay certain fees to local agencies for its projects, it may choose to do so on a case-by-case basis.

EBMUD is also subject to applicable state and federal environmental and resource protection requirements in implementing its projects. These include streambed alteration agreements with the California Department of Fish and Game, Section 404 permits from the U.S Army Corps of Engineers for any potential impacts to wetlands or waterways, Clean Water Act stormwater discharge authorizations, and Clean Water Act section 401 water quality certifications from the Regional Water Quality Control Board for any discharges to waterways, among others.

EBMUD is a municipal utility district as defined by the Municipal Utility District Act. Public Utilities Code Section 12801 sets forth the broad authority under which municipal utility districts such as EBMUD can construct, own, operate, control or use works or parts of works for supplying the inhabitants of the district with water. The District also has the authority to construct works along streets and public highways (Pub. Utilities Code § 12808). Although EBMUD has the authority to exercise the right of eminent domain (condemnation), it has a policy of seeking to acquire property from willing sellers. EBMUD therefore only employs this power as a last resort when necessary to support its overall water supply and distribution mission.

Certain areas near proposed facility upgrades, including the Sugarloaf Open Space near the New Leland Pressure Zone Reservoir, are subject to State laws, including the provisions of the Municipal Park Abandonment Law. In certain circumstances, Government Code section 38502 places restrictions on the abandonment of all or part of a park and the sale or conveyance of the land. This section may require a public vote prior to sale or conveyance.

2.1.4 Draft Master Response on the Need for and Alternatives to the Happy Valley Pumping Plant and Pipeline

A number of comments questioned the need for and benefits of the proposed Happy Valley Pumping Plant and Pipeline. The DEIR provides a description of the need for this project on pp. 2-18 and 2-74. This master response provides an expanded discussion of the need for the Happy Valley Pumping Plant and Pipeline in response to the following comments:

BJT-4	DS-2	JC-10	JC-8	RCW-2	RCW-4
RCW-6	RCW-12	RCW-13	RCW-14	RCW-15	RCW-16
RCW-56	RCW-64	RCW-66	RCW-67	SMR1-1	SMR1-4

The purpose of the new Happy Valley Pumping Plant and associated 16-inch pipeline is to increase the water supply to the Las Aromas Pressure Zone, located north of Hwy 24 within Orinda and Lafayette (see Figure 2). Over the years, residential growth in this pressure zone has rendered the pumping plants and associated pipelines too small to meet current demands. Customer accounts in the Las Aromas Pressure Zone have a relatively high rate of water usage, averaging 730 gallons/day in 2005. (By comparison, customer accounts in Moraga [Mulholland Pressure Zone] average 500 gallons/day, and customer accounts in Berkeley [Shasta Pressure Zone] average 290 gallons/day.) During sustained periods of hot weather EBMUD has difficulty supplying the water to customers in the Las Aromas Pressure Zone because of the size of the pumps and pipelines serving the zone (three pumping plants – Valory, Sleepy Hollow and Las Aromas – pump water uphill to the zone via small diameter [6 to 8-inch] pipelines). At times the water tanks in the neighborhood have drained to dangerously low levels of about 33 percent full, and have taken days to recover to full capacity. EBMUD's standard is to keep its storage reservoirs greater than 70 percent full at all times in order to provide emergency storage for the downgradient pressure zone such as fire flow and to maintain adequate pressure for the users. As the local water demands are projected to increase slightly through the year 2030, this existing water supply deficiency within the Las Aromas Pressure Zone will worsen without the proposed improvements.

While EBMUD is not required to supply a minimum firefighting flow rate,[1] a large fire during a typical hot, summer day would exacerbate the water-shortage risk in the Orinda area. The proposed Happy Valley Pumping Plant and 16-inch pipeline were sized to meet the projected demand for domestic supply; however, any surplus capacity (in addition to standard emergency capacity) resulting from these proposed improvements would be diverted to fight fires in the Orinda area as necessary.

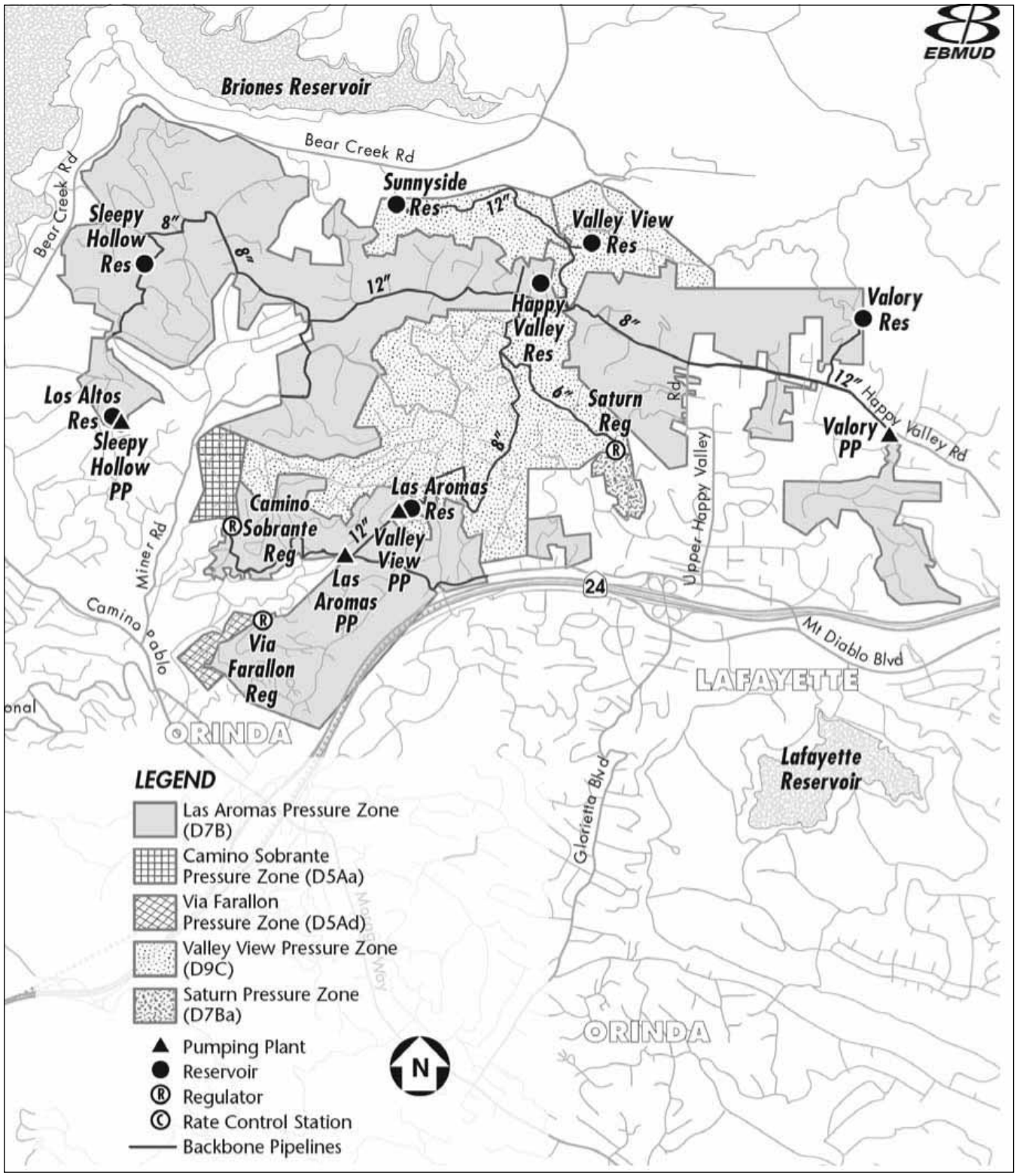
[1] The WTTIP projects were developed separately from the firefighting improvements contained within the recently defeated City of Orinda public infrastructure improvement ballot Measure Q, or the previous Orinda Fire Safety Committee Measure N, which was also narrowly defeated in November 2002. The firefighting improvement details of these two measures were developed by a committee formed with members of the Orinda City Council, Moraga-Orinda Fire District and EBMUD.

The Las Aromas Pressure Zone is currently served by three pumping plants (Valory, Sleepy Hollow and Las Aromas) and four reservoirs (Valory, Sleepy Hollow, Las Aromas and Happy Valley) within Orinda and Lafayette. As shown on Figure 2, the Valory, Sleepy Hollow, and Las Aromas Pumping Plants fill the reservoir of the same name (e.g., the Valory Pumping Plant primarily fills the Valory Reservoir). The Happy Valley Reservoir is the primary water tank for the community as it provides over fifty percent of the storage capacity (1.5 million gallons) for the entire pressure zone. The Happy Valley Reservoir is filled to varying degrees by the three pumping plants. The new Happy Valley Pumping Plant would primarily supply the Happy Valley Reservoir.

EBMUD has examined the possibility of upgrading these existing facilities; however due to limited available space at each site, no one plant can be expanded to supply the additional pumping capacity needed. The pipelines attached to these pumping plants are relatively undersized as well. Thus, in order to meet the current and projected water demands, two or more of the existing Las Aromas Pressure Zone pumping plants would need to be expanded along with thousands of feet of distribution piping within existing paved streets. Based on a comparison of the environmental impacts including construction-phase disruption and project costs between upgrading these existing plants and pipelines, versus building one new pumping plant and a shorter (but larger diameter) pipeline, EBMUD has selected the latter.

New pumping plants are generally sited within or near the communities (and water tanks) served in order to keep the size, power requirements and costs of the pumps to a minimum. The farther away from the pressure zone that one builds the facility, the bigger the pumping plant, the longer (and often larger) the transmission pipeline and the greater the energy losses within the system. These items all result in larger construction, operation and maintenance costs and greater energy requirements to keep the pumps running. Longer pipelines also result in greater construction costs and environmental impacts. As such, when evaluating locations for a new pumping plant, EBMUD looked at vacant properties within the Las Aromas Pressure Zone in the vicinity of the Happy Valley Reservoir off Sundown Terrace.

In conclusion, the construction of the Happy Valley Pumping Plant and new pipeline will directly benefit Orinda residents, particularly those living in the neighborhoods surrounding Miner Road and Lombardy Lane (Figure 2). The reliability of the water supply and firefighting storage will be greatly increased in the vicinity of the improvements. EBMUD acknowledges that there will be temporary construction impacts (traffic delays, dust, noise, etc.) and potential long term impacts (visual and occasional pumping plant noise) resulting from this new project within an established residential neighborhood. However, EBMUD will mitigate these impacts to the extent feasible, so as to minimize the environmental impacts on the immediate neighborhood while continuing to meet the current and long term water supply needs of the surrounding community.



SOURCE: EBMUD

EBMUD Water Treatment and Transmission Improvements Program . 204369

Figure 2
Las Aromas Pressure Zone Map

2.1.5 Master Response on Social and Economic Costs

Some commenters expressed concerns that property values may decline as a result of many of the WTTIP projects. Several commenters also cited a number of issues regarding the potential for a degradation of their quality of life.

This Master Response focuses on social and economic issues raised in comments on the DEIR and the project, and responds to all or part of the following comments:

AH-5	AL-2	AS-10	BJT-3	BJT-10	BM-2
CA-14	CB-11	CN-4	DJB-11	DMA-6	DS-10
GF-9	GF1-2	HOA-13	KH1-5	KL1-3	KL2-6
RC-12	RJ-10	SMR-1	SP-11	WEH-12	

The DEIR evaluates the potential for the WTTIP to degrade the environment. Economic and social impacts of a proposed project by themselves are not treated as significant impacts on the environment (CEQA Guidelines §15131(a)). Nonetheless, to the extent that a perceived diminution in property values or decline in quality of life would be caused by or result in a degradation in the physical environment, the DEIR discusses measures that will be adopted as conditions of project approval to mitigate environmental impacts. For an examination of these impacts and mitigation measures, please refer to pertinent sections of the DEIR (3.2, Land Use, Planning, and Recreation; 3.3, Visual Quality; 3.4, Geology, Soils, and Seismicity; 3.5, Hydrology and Water Quality; 3.6, Biological Resources; 3.7, Cultural Resources; 3.8, Traffic and Circulation; 3.9, Air Quality; 3.10, Noise and Vibration; 3.11, Hazards and Hazardous Materials; 3.12, Public Services and Utilities).

As defined by the California Environmental Quality Act (CEQA), the purpose of an EIR is to analyze physical impacts on the environment (Pub. Res. Code §21082.2). Issues pertaining to property values or quality of life are considered social or economic issues and as such, are not addressed as significant effects on the environment in an environmental impact report (EIR). See CEQA Guidelines §15131(a) stating that "economic or social effects of a project shall not be treated as significant effects on the environment."

Regarding impacts to businesses resulting from road closures, as stated on DEIR p. 3.8-16, the pace of open-trench work for proposed pipeline improvements in paved areas is estimated to average 80 feet per day, and the work schedule would be 8:30 a.m. to 4:30 p.m., Monday through Friday. Based on that estimated work pace, construction in front of an individual property would typically take about two days. As stated on DEIR p. 3.8-20, employees and customers would continue to have access to the business establishments; only parking (on- or off-street) adjacent to the business would be affected, and truck deliveries could be made difficult. With sufficient advance notice, this short-term inconvenience would have a less-than-significant impact.

2.1.6 Master Response on New Leland Pressure Zone Reservoir Alternatives

A number of comments raise questions and concerns about the site that has been identified in the DEIR as the potential preferred site for the proposed New Leland Pressure Zone Reservoir. Some of these comments also raise questions about the process used to identify and evaluate alternatives to this site. This master response applies to the following comment letters:

WC	DCAY	DG	DM	EE	FAP
HME	JB	JW	KL	KS	LG
LS	MT	RS	RSY	TS	WBP

The primary purpose of the program-level analysis presented in the WTTIP EIR for the proposed New Leland Pressure Zone Reservoir is to provide the public with the analysis regarding siting and possible impacts known at this stage in the planning process. The analysis contains a limited number of feasible reservoir sites because of geographic and other site constraints identified at this time. As noted in the DEIR, however, this element of the WTTIP is examined at the program-level in the WTTIP EIR, and EBMUD has committed to a more in-depth project-level EIR at an appropriate date in the future. See DEIR Sections S.3.1, S.6, 2.7, and 3.1.4 and Section 2.1.1, Master Response on Program- and Project-Level Distinctions (in this Response to Comments document), for more detail on the process that is to be used for program-level elements.

In addition, because several commenters have asked about the process, the District would like to clarify that EBMUD has not yet chosen a specific site for the proposed reservoir, and the EBMUD Board will not be eliminating any potential sites by certifying the WTTIP EIR. In light of the significant concerns raised by the City of Walnut Creek and others concerning Site 3, EBMUD will undertake a full examination of siting and design alternatives in a subsequent, project-level EIR, as part of the conceptual design planning and evaluation process. That subsequent EIR will examine any potentially feasible sites that are identified by EBMUD – or brought to EBMUD's attention by the Cit of Walnut Creek or other persons or agencies – along with any new information or changed circumstances relevant to the feasibility and potential impacts of the sites that have been identified to date. Throughout this process, EBMUD will welcome suggestions from the public regarding an appropriate site for the reservoir.

As the responses to the individual comments note, the DEIR provides a sufficient program-level analysis of the New Leland Pressure Zone Reservoir and describes the project alternatives and potential impacts with as much specificity as is feasible at this time.

2.2 – 2.110
Comments and Responses

ESA

State Agencies

Comment Letter SCH

STATE OF CALIFORNIA

Governor's Office of Planning and Research

State Clearinghouse and Planning Unit

Arnold Schwarzenegger
Governor

Sean Walsh
Director

August 8, 2006

WATER DISTRIBUTION
AUG 10 2006
PLANNING DIVISION

Judy Zavadil
East Bay Municipal Utility District
P.O. Box 24055, MS 701
Oakland, CA 94623-1055

Subject: EBMUD Water Treatment and Transmission Improvements Program
SCH#: 2005092019

Dear Judy Zavadil:

The State Clearinghouse submitted the above named Draft EIR to selected state agencies for review. The review period closed on August 7, 2006, and no state agencies submitted comments by that date. This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. SCH-1

Please call the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process. If you have a question about the above-named project, please refer to the ten-digit State Clearinghouse number when contacting this office.

Sincerely,

Terry Roberts

Terry Roberts
Director, State Clearinghouse

Document Details Report
State Clearinghouse Data Base

Comment Letter SCH

WATER DISTRIBUTION

AUG 10 2006

PLANNING DIVISION

SCH# 2005092019
Project Title EBMUD Water Treatment and Transmission Improvements Program
Lead Agency East Bay Municipal Utility District

Type EIR Draft EIR

Description The Water Treatment and Transmission Improvements Program includes new facilities and upgrades to existing facilities in Lafayette, Moraga, Oakland, Orinda, Walnut Creek, and unincorporated Contra Costa County. The facilities include upgrades at five existing water treatment plants, a water aqueduct from Orinda to Lafayette (alternative 2 only), 17 distribution system projects, and a reclaimed water pipeline.

Lead Agency Contact

Name Judy Zavadil
Agency East Bay Municipal Utility District
Phone (510) 287-1191 **Fax**
email
Address P.O. Box 24055, MS 701
City Oakland **State** CA **Zip** 94623-1055

Project Location

County Contra Costa, Alameda
City Orinda, Moraga, Lafayette, Walnut Creek, Oakland, Richmond
Region
Cross Streets
Parcel No.
Township **Range** **Section** **Base**

Proximity to:

Highways 24, I-680
Airports
Railways UPRR, SPRR
Waterways San Pablo Creek, San Ramon Creek, Las Trampas Creek, and others
Schools Various
Land Use

Project Issues Aesthetic/Visual; Air Quality; Archaeologic-Historic; Biological Resources; Cumulative Effects; Forest Land/Fire Hazard; Geologic/Seismic; Growth Inducing; Landuse; Noise; Population/Housing Balance; Public Services; Recreation/Parks; Schools/Universities; Soil Erosion/Compaction/Grading; Solid Waste; Toxic/Hazardous; Traffic/Circulation; Vegetation; Water Quality; Wetland/Riparian; Wildlife

Reviewing Agencies Resources Agency; Regional Water Quality Control Board, Region 2; Department of Parks and Recreation; Native American Heritage Commission; Department of Health Services; Office of Historic Preservation; Department of Fish and Game, Region 3; Department of Water Resources; Department of Conservation; California Highway Patrol; Caltrans, District 4; State Water Resources Control Board, Division of Water Quality; State Water Resources Control Board, Clean Water Program; State Lands Commission

Date Received 06/23/2006 **Start of Review** 06/23/2006 **End of Review** 08/07/2006

Note: Blanks in data fields result from insufficient information provided by lead agency.

2.2 State Clearinghouse

SCH-1 Comment noted. Notification was provided to the State Clearinghouse (SCH) that the DEIR comment period was initially scheduled to end on August 25, 2006. Later, the SCH granted EBMUD's request to extend the comment period to September 18, 2006.

Comment Letter DTSC

Department of Toxic Substances Control

Maureen F. Gorsen, Director
700 Heinz Avenue
Berkeley, California 94710-2721

Linda S. Adams
Secretary for
Environmental Protection

Arnold Schwarzenegger
Governor

August 15, 2006

WATER DISTRIBUTION
AUG 17 2006
PLANNING DIVISION

Mr. Jason Munkres
East Bay Municipal Utility District
375 Eleventh Street
Mail Slot 701
Oakland, California 94607

Dear Mr. Munkres:

Thank you for the opportunity to comment on the Water Treatment and Transmission Improvements Program draft Environmental Impact Report (EIR) (SCH #2005092019). As you may be aware, the California Department of Toxic Substances Control (DTSC) oversees the cleanup of sites where hazardous substances have been released pursuant to the California Health and Safety Code, Division 20, Chapter 6.8. As a potential Responsible Agency, DTSC is submitting comments to ensure that the California Environmental Quality Act (CEQA) documentation prepared for this project adequately addresses any remediation of hazardous substance releases that may be necessary. DTSC-1

It is stated on page 3.11-21 of the draft EIR that "materials and wastes may only be recycled, reused, reclaimed, or disposed of at locations approved by the District." The criteria or approach for establishing criteria that would be used for determining if soil can be recycled or reused need to be identified or discussed. If soil will be reused or recycled on land that is designated for unrestricted use, the soil will need to meet criteria which ensure that contaminants are not present at levels that pose a significant risk to human or ecological receptors. If reused or recycled soil does not meet criteria that allow for unrestricted land use, then institutional controls, such as a land use covenant will be necessary for the land that the soil is placed on. DTSC-2

DTSC can assist lead agencies in overseeing characterization and cleanup activities through our Voluntary Cleanup Program. A fact sheet describing this program is enclosed. We are aware that projects are typically on a compressed schedule, and in an effort to use the available review time efficiently, we request that DTSC be included in future meetings where issues relevant to our statutory authority are discussed. DTSC-3 DTSC-4

Please contact Homayune Atiqee of my staff at (510) 540-3838 if you have any questions. Thank you in advance for your cooperation in this matter.

Sincerely,

Mark Piros

Mark Piros, P.E., Unit Chief
Northern California Coastal
Cleanup Operations Branch

Enclosure

cc: without enclosure

Governor's Office of Planning and Research
State Clearinghouse
P.O. Box 3044
Sacramento, California 95812-3044

Guenther Moskat
CEQA Tracking Center
Department of Toxic Substances Control
P.O. Box 806
Sacramento, California 95812-0806

Comment Letter DTSC

California Environmental Protection Agency
Department of Toxic Substances Control

The Voluntary Cleanup Program

The California Environmental Protection Agency's Department of Toxic Substances Control (DTSC) has introduced a streamlined program to protect human health, cleanup the environment and get property back to productive use. Corporations, real estate developers, and local and state agencies entering into Voluntary Cleanup Program agreements will be able to restore properties quickly and efficiently, rather than having their projects compete for DTSC's limited resources with other low-priority hazardous waste sites. This fact sheet describes how the Voluntary Cleanup Program works.

Prior to initiation of the Voluntary Cleanup Program, project proponents had few options for DTSC involvement in cleaning up low-risk sites. DTSC's statutory mandate is to identify, prioritize, manage and cleanup sites where releases of hazardous substances have occurred. For years, the mandate meant that, if the site presented grave threat to public health or the environment, then it was listed on the State Superfund list and the parties responsible conducted the cleanup under an enforcement order, or DTSC used state funds to do so. Because of staff resource limitations, DTSC was unable to provide oversight at sites which posed lesser risk or had lower priority.

DTSC long ago recognized that no one's interests are served by leaving sites contaminated and unusable. The Voluntary Cleanup Program allows motivated parties who are able to fund the cleanup -- and DTSC's oversight -- to move ahead at their own speed to investigate and remediate their sites. DTSC has found that working cooperatively with willing and able project proponents is a more efficient and cost-effective approach to site investigation and cleanup. There are four steps to this process:

- Eligibility and Application
- Negotiating the Agreement
- Site Activities
- Certification and Property Restoration

The rest of this fact sheet describes those steps and gives DTSC contacts.

February 1999

(Revised November 2001)

Comment Letter DTSC

The Voluntary Cleanup Program

Step 1: Eligibility and Application

Most sites are eligible. The main exclusions are if the site is listed as a Federal or State Superfund site, is a military facility, or if it falls outside of DTSC's jurisdiction, as in the case where a site contains only leaking underground fuel tanks. Another possible limitation is if another agency currently has oversight, e.g., a county (for underground storage tanks). The current oversight agency must consent to transfer the cleanup responsibilities to DTSC before the proponent can enter into a Voluntary Cleanup Program agreement. Additionally, DTSC can enter into an agreement to work on a specified element of a cleanup, if the primary oversight agency gives its consent. The standard application is attached to this fact sheet.

If neither of these exclusions apply, the proponent submits an application to DTSC, providing details about site conditions, proposed land use and potential community concerns. No fee is required to apply for the Voluntary Cleanup Program.

Step 2: Negotiating the Agreement

Once DTSC accepts the application, the proponent meets with experienced DTSC professionals to negotiate the agreement. The agreement can range from services for an initial site assessment, to oversight and certification of a full site cleanup, based on the proponent's financial and scheduling objectives.

The Voluntary Cleanup Program agreement specifies the estimated DTSC costs, scheduling for the project, and DTSC services to be provided. Because every project must meet the same legal and technical cleanup requirements as do State Superfund sites, and because DTSC staff provide oversight, the proponent is assured that the project will be completed in an environmentally sound manner.

In the agreement, DTSC retains its authority to take enforcement action if, during the investigation or cleanup, it determines that the site presents a serious health threat, and proper and timely action is not otherwise being taken. The agreement also allows the project proponent to terminate the Voluntary Cleanup Program agreement with 30 days written notice if they are not satisfied that it is meeting their needs.

Step 3: Site Activities

Prior to beginning any work, the proponent must have: signed the Voluntary Cleanup Program agreement; made the advance payment; and committed to paying all project costs, including those associated with DTSC's oversight. The project manager will track the project to make sure that DTSC is on schedule and within budget. DTSC will bill its costs quarterly so that large, unexpected balances will not occur.

February 1999

(Revised November 2001)

Once the proponent and DTSC have entered into a Voluntary Cleanup Program agreement, initial site assessment, site investigation or cleanup activities may begin. The proponent will find that DTSC's staff includes experts in every vital area. The assigned project manager is either a highly-qualified Hazardous Substances Scientist or Hazardous Substances Engineer. That project manager has the support of well-trained DTSC toxicologists, geologists, industrial hygienists and specialists in public involvement.

The project manager may call on any of these specialists to join the team, providing guidance, review, comment and, as necessary, approval of individual documents and other work products. That team will also coordinate with other agencies, as appropriate, and will offer assistance in complying with other laws, such as the Resource Conservation and Recovery Act.

Step 4: Certification and Property Restoration

When remediation is complete, DTSC will issue either a site certification of completion or a "No Further Action" letter, depending on the project circumstances. Either means that what was, "The Site," is now property that is ready for productive economic use.

To learn more about the Voluntary Cleanup Program, contact the DTSC representative in the Regional office nearest you:

Southern California
Tina Diaz
1011 North Grandview Avenue
Glendale, California 91201
(818) 551-2862

Central California
Megan Cambridge
8800 Cal Center Drive
Sacramento, CA 95826-3200
(916) 255-3727

North Coast California
Lynn Nakashima Janet Naito
700 Heinz Avenue, Suite 200
Berkeley, California 94710-2737
(510) 540-3839 (510) 540-3833

Central California - Fresno Satellite
Tom Kovac
1515 Tollhouse Road
Clovis, California 93612
(209) 297-3939

(Revised 11/2001)

Comment Letter DTSC

CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY
DEPARTMENT OF TOXIC SUBSTANCES CONTROL
SITE MITIGATION STATEWIDE CLEANUP OPERATIONS

VOLUNTARY CLEANUP PROGRAM APPLICATION

The purpose of this application is to obtain information necessary to determine the eligibility of the site for acceptance into the Voluntary Cleanup Program. Please use additional pages, as necessary, to complete your responses.

SECTION 1 PROPONENT INFORMATION

Proponent Name

_____

Principal Contact Name

_____ Phone ( ) _____

Address

_____

Proponent's relationship to site

_____

_____

Brief statement of why the proponent is interested in DTSC services related to site

_____

_____

SECTION 2 SITE INFORMATION

Is this site listed on Calsites? ☐ Yes ☐ No
If Yes, provide specific name and number as listed

_____

Name of Site

_____

Address City County ZIP

_____

(Please attach a copy of an appropriate map page)

SECTION 2 SITE INFORMATION (continued)

Current Owner

Name _____

Address _____

Phone ( ) _____

Background: Previous Business Operations

Name _____

Type _____

Years of Operation _____

If known, list all previous businesses operating on this property _____

_____

_____

What hazardous substances/wastes have been associated with the site?

_____

_____

What environmental media is/was/may be contaminated?

☐ Soil ☐ Air ☐ Groundwater ☐ Surface water

Has sampling or other investigation been conducted? ☐ Yes ☐ No

Specify _____

_____

_____

If Yes, what hazardous substances have been detected and what were their maximum concentrations?

_____

_____

_____

SECTION 2 SITE INFORMATION (continued)

Are any Federal, State or Local regulatory agencies currently involved with the site? ☐ Yes ☐ No
If Yes, state the involvement, and give contact names and telephone numbers

Agency	Involvement	Contact Name	Phone

What is the future proposed use of the site? _____

_____

What oversight service is being requested of the Department?

☐ PEA ☐ RI/FS ☐ Removal Action ☐ Remedial Action ☐ RAP ☐ Certification

☐ Other (describe the proposed project) _____

Is there currently a potential of exposure of the community or workers to hazardous substances at the site?

☐ Yes ☐ No If Yes, explain _____

_____

SECTION 3 COMMUNITY PROFILE INFORMATION

Describe the site property (include approximate size) _____

_____

_____

Describe the surrounding land use (including proximity to residential housing, schools, churches, etc.) _____

_____

_____

Describe the visibility of activities on the site to neighbors _____

_____

_____

SECTION 3 COMMUNITY PROFILE INFORMATION (continued)

What are the demographics of the community (e.g., socioeconomic level, ethnic composition, specific language considerations, etc.)? _____

_____

Local Interest

Has there been any media coverage? _____

_____

Past Public Involvement

Has there been any past public interest in the site as reflected by community meetings, ad hoc committees, workshops, fact sheets, newsletters, etc.?

_____

Key Issues and Concerns

Have any specific concerns/issues been raised by the community regarding past operations or present activities at the site?

_____

Are there any concerns/issues anticipated regarding site activities?

_____

Are there any general environmental concerns/issues in the community relative to neighboring sites?

_____

Key Contacts

Please attach a list of key contacts for this site, including: city manager; city planning department; county environmental health department, local elected officials; and any other community members interested in the site. (Please include addresses and phone numbers.)

_____

SECTION 4 CERTIFICATION

The signatories below are authorized representatives of the Project Proponent and certify that the preceding information is true to the best of their knowledge.

_____ _____ _____

Proponent Representative Date Title

2.3 Department of Toxic Substances Control

DTSC-1 Comment noted.

DTSC-2 The criteria for determining whether soil can be recycled or reused would be included in the soil management plan prepared by the contractor and reviewed by EBMUD in accordance with EBMUD construction specifications (described on DEIR p. 3.11-21). The general process that would be used for determining appropriate use of the soil is provided below.

In accordance with EBMUD established procedures and previous guidance from the Department of Toxic Substances Control (DTSC), soil from trenching operations in public right-of-ways may be placed back into the trench, even if contaminated, provided that certain conditions are met.

For pipeline and non-pipeline projects at previously undeveloped sites or sites that were used exclusively for residential purposes, excavated soil would be considered appropriate for unrestricted onsite or offsite reuse unless signs of contamination were present. Excavated soil from sites with no potential for contamination (based on the environmental site assessment conducted in accordance with Measure 3.11-1) would also be considered acceptable for unrestricted use.

For projects where the site assessment or field conditions suggest potential contamination, the contractor would be required to sample any excess soil from pipeline projects as well as any soil excavated for construction of non-pipeline projects. Analysis would include potential contaminants identified on the basis of the site assessment or observed field conditions. Any soil classified as a hazardous waste would be legally managed in accordance with applicable laws and regulations.

For non-hazardous soil considered for onsite or offsite reuse, the detected concentrations of any chemical would be compared to DTSC screening levels and Regional Water Quality Control Board environmental screening levels. Soils meeting the criteria for residential land use would be considered appropriate for unrestricted reuse. If not disposed of at a permitted disposal facility, soil with chemical concentrations exceeding residential screening levels could be used at industrial or commercial sites if it meets the appropriate screening levels (or levels determined acceptable by a site-specific risk assessment), and institutional controls such as a land use covenant would be implemented. Reuse for other purposes would be determined on the basis of site-specific studies appropriate to the planned reuse. The DTSC would be consulted in determining the appropriate reuse of soil and institutional controls.

DTSC-3 EBMUD will use the DTSC Voluntary Agreement for characterization and cleanup activities as appropriate.

DTSC-4 As requested, EBMUD will request DTSC attendance at future meetings where issues relevant to DTSC's statutory authority are discussed. Please also refer to Section 2.1.3, Master Response on EBMUD Obligations to Comply with Local Ordinances, Obtain Local Agency Approvals and Permits, and Pay Local Agency Fees for additional response pertinent to this comment.

Local Agencies

ESA

Central Contra Costa Sanitary District
5019 Imhoff Place, Martinez, CA 94553-4392
(925) 228-9500 • www.centralsan.org

FAX: (925) 228-4624

JAMES M. KELLY
General Manager

KENTON L. ALM
Counsel for the District
(510) 808-2000

ELAINE R. BOEHME
Secretary of the District

Fax: 510-287-0790

September 18, 2006

WATER DISTRIBUTION
SEP 18 2006
PLANNING DIVISION

Ms. Judy Zavadil, Senior Project Manager
EBMUD
MS #701
375 Eleventh Street
Oakland, CA 94607-4240

Dear Ms. Zavadil:

COMMENTS ON THE EBMUD WATER TREATMENT AND TRANSMISSION IMPROVEMENT PROJECT DRAFT ENVIRONMENTAL IMPACT REPORT; SCH NO. 2005092019

Thank you for the opportunity to comment on this Draft Environmental Impact Report for the 2030 General Plan. As the wastewater collection and treatment agency for Concord, Central Contra Costa Sanitary District (CCCSD) offers the following comments:

1. General: CCCSD has many existing and planned sewer projects in the WWTIP area. Please coordinate your construction activities with CCCSD staff. CCCSD-1

2. Table 5-1, Page 5-21. CCCSD's Collection System Renovation Program description on this page should have noted that the sewers to be improved will be located all throughout Orinda, on both sides of Highway 24. CCCSD-2

3. Table 5-1, Page 5-26. For the CCCSD's Orinda Crossroads Pumping Station Force Main project description, please replace "Walnut Creek" with "Orinda." CCCSD-3

4. Table 5-1. Several additional CCCSD sewer projects listed in the attached table should be added to Table 5-1 as they may be constructed during the same time period as the proposed project. CCCSD-4

If you have any questions regarding these comments, please contact me at 925-229-7255.

Sincerely,

Russell B. Leavitt

Russell B. Leavitt, AICP
Engineering Assistant III

RBL/mvp

cc: T. Pilecki, CCCSD

N:\ENVRSRV\Planning\Leavitt\DevRev\LETTERS\EBMUD WTTIP DEIR.doc

ADDITIONAL CCCSD PROJECTS FOR DRAFT EIR TABLE 5-1

PROJECT	LOCATION	CONSTRUCTION SCHEDULE
Orinda-EBMUD Filter Plant Sewer Replacement	Easement through EBMUD R/W near EBMUD Filter Plant, Orinda	FY 2021/2022
Contra Costa Canal Sewer Replacement	Along Canal, between Oak Grove Road and Amberwood Lane, Walnut Creek	FY 2016/2017
Lamorinda-Olympic Blvd. 3 Parallel Sewer	Olympic Blvd. at Alpine Road easement to California Blvd., Walnut Creek	FY 2016/2017
Lamorinda-Mt. Diablo Blvd. Parallel Sewer	Mt. Diablo Blvd., from El Nido Ranch Road to Dolores Drive, Lafayette	FY 2019/2020
Lamorinda-Olympic Blvd. 1 Parallel Sewer	Golden Gate Way, Second Street, Moraga Blvd., Olympic Blvd, Lafayette	FY 2019/2020
Lamorinda-Olympic Blvd. 2 Parallel Sewer	Olympic Blvd., from Reliez Station Road to Newell Avenue, Lafayette/Walnut Creek	FY 2016/2017

2.4 Central Contra Costa Sanitary District

CCCSD-1 Including those projects identified in the CCCSD comment letter, DEIR Table 5-1 identifies 32 existing or planned projects by the Central Contra Costa Sanitary District (CCCSD). As stated on DEIR p. 5-38, the District has initiated coordination with other agencies regarding the timing of construction projects. The District will continue to coordinate with CCCSD and other affected agencies as project planning and design efforts proceed.

EBMUD also requests that the CCCSD work with EBMUD in regards to their future plans. Temporary road closures, trench excavations and paving activities should be coordinated by the two utilities in order to minimize temporary environmental impacts to the community. Please also refer to Section 2.1.3, Master Response on EBMUD Obligations to Comply with Local Ordinances, Obtain Local Agency Approvals and Permits, and Pay Local Agency Fees for additional response pertinent to this comment.

CCCSD-2 The text in Table 5-1, DEIR p. 5-21 regarding CCCSD's Collection System Renovation Program has been revised (refer to Section 3.2, Text Revisions, in this Response to Comments document).

CCCSD-3 This project has been moved to the Orinda section of Table 5-1 (DEIR p. 5-26) and the text regarding CCCSD's Orinda Crossroads Pumping Station Force Main has been revised (refer to Section 3.2, Text Revisions, in this Response to Comments document).

CCCSD-4 The six additional CCCSD projects provided in the comment letter have been added to Table 5-1 and Figure 5-1 (Revised Table 5-1 and Revised Figure 5-1 in this Response to Comments document). The Lamorinda-Mt. Diablo Boulevard parallel sewer project (project L-6d) tentative construction overlaps in part with the construction schedule for the Lafayette WTP project and could compound temporary traffic impacts associated with construction, possibly including construction of the future realigned Walter Costa Trail. Otherwise no other of the additional CCCSD projects identified in this comment appear to overlap with the construction schedules for WTTIP projects, although CCCSD project L-6f would entail impacts within the same general area as the Tice Pumping Plant project.

Comment Letter C3FC

Contra Costa County
FLOOD CONTROL
& Water Conservation District

Maurice M. Shiu
ex officio Chief Engineer
255 Glacier Drive, Martinez, CA 94553-4825
Telephone: (925) 313-2000
FAX (925) 313-2333

July 17, 2006

WATER DISTRIBUTION
JUL 19 2006
PLANNING DIVISION

Judy Zavadil
East Bay Municipal Utility District
375 Eleventh St., MS #701
Oakland, CA 94607-4240

File: Utilities – 2003, EBMUD

Dear Ms. Zavadil:

We have reviewed the Draft Environmental Impact Report (DEIR) for the proposed Water Treatment & Transmission Improvements Program. These comments are in addition to those found in our letter dated October 5, 2005 (see attached). We received the document on July 5, 2006, and offer the following comments:

1. The proposed project is located in several Drainage Areas that are unformed. Therefore there are no drainage area fees due in those project areas at this time. C3FC-1

2. The Tice Pumping Plant is located within Drainage Area 15A, for which a drainage fee is due in accordance with Flood Control Ordinance Number 85 - 19. By ordinance, all building permits or subdivision maps filed in this area are subject to the provisions of the drainage fee ordinance. Effective April 22, 1985, the current fee in this drainage area is $0.35 per square foot of newly created impervious surface area. C3FC-2

3. The Walnut Creek WTP is located in Drainage Area 46, for which a drainage fee is due in accordance with Flood Control Ordinance Number 2002 - 43. By ordinance, all building permits or subdivision maps filed in this area are subject to the provisions of the drainage fee ordinance. Effective February 3, 2003, the current fee in this drainage area is $0.57 per square foot of newly created impervious surface area. C3FC-3

4. Please submit dimensions for the impervious surfaces so we can calculate the drainage fees that are outlined above. C3FC-4

5. In section 3.5 of the Draft EIR, it is stated that the areas that are in danger of flooding will be improved to prevent flooding. This addresses the concerns about natural watercourses mentioned in our correspondence dated on October 5, 2005. C3FC-5

6. The Hydrology Section includes an analysis of the adequacy of the existing drainage facilities to handle the storm runoff from the project site, which address the County-owned drainage facilities comments. C3FC-6

Thank you for the opportunity to comment on this DEIR. Please contact Jon Suemnick at (925) 313-2352 or me at (925) 313- 2396 if you have questions.

Very truly yours,

for Tim Jensen
Associate Civil Engineer
Flood Control Engineering

TJ:JS:kg
attachment
G:\FldCtl\CurDev\County Wide Projects\Utility Projects\EBMUD Water Treatment Improvement DEIR.doc
c: Greg Connaughton, Flood Control
Bob Faraone, Flood Control

Comment Letter C3FC

Contra Costa County
FLOOD CONTROL
& Water Conservation District

Maurice M. Shiu
ex officio Chief Engineer
255 Glacier Drive, Martinez, CA 94553-4825
Telephone: (925) 313-2000
FAX (925) 313-2333

October 5, 2005

Jason Munkres
East Bay Municipal Utility District
375 Eleventh Street, MS701
Oakland, CA 94607-4240

File: Utilities – 2003, EBMUD

Dear Mr. Munkres:

We have reviewed the Notice of Preparation of an Environmental Impact Report for the Water Treatment and Transmission Improvements Program for Alameda and Contra Costa Counties of the East Bay Municipal Utility District.

A. The following comments are from Contra Costa County Flood Control and Water Conservation District. Please contact Mario Consolacion at (925) 313-2283 or me at (925) 313-2396 if you have questions about these comments:

1. The Contra Costa County Flood Control and Water Conservation District (District) has properties and facilities in some of the proposed project sites. Please identify in the Draft EIR any District-owned rights of way or facilities that would be impacted by the improvement projects. C3FC-7

2. Similarly, Contra Costa County owns and maintains drainage facilities at some of the project locations. County-owned drainage facilities that would be affected by the improvement projects should also be identified in the environmental document. A County Drainage Permit may be required for work affecting drainage facilities and watercourses located in the unincorporated County areas. C3FC-8

3. Contra Costa County has jurisdiction over natural watercourses in the unincorporated County. Potential impacts to these watercourses should be addressed in the Draft EIR. C3FC-9

B. The following comments are from the Maintenance Division of Contra Costa County Public Works Department. Please contact Rob Tavenier at (925) 313-7006 if you have questions about these comments:

1. If construction activities would impact roads located in the unincorporated Contra Costa County, we request that the Draft EIR identify those roads and recommend mitigation measures for adverse impacts. C3FC-10

2. Scheduled road maintenance under the County's Pavement Management System in the vicinity of the project areas could also be impacted by this program's construction C3FC-11

Comment Letter C3FC

activities. This schedule is a dynamic document that is updated yearly based on pavement condition and budget. We request the Draft EIR address conflicts in schedules and recommend mitigation measures. Information about the current schedule may be obtained by contacting Henry Finch, Contra Costa County Public Works Department, 2475 Waterbird Way, Martinez, CA 94553, (925) 313-7004. C3FC-11

C. The following comments are from the Transportation Division of Contra Costa County Public Works Department. Please contact Chris Lau at (925) 313-2293 if you have questions about these comments:

1. Transportation Engineering currently does not have planned improvement projects within the limits of this Program. Any future activity within the County right-of-way will require the issuance of an encroachment permit. C3FC-12

2. If EBMUD is required to provide vegetation mitigation as a result of this Program, Transportation Engineering would welcome the opportunity to discuss with EBMUD potential mitigation sites. C3FC-13

Thank you for giving us the opportunity to comment on the scope of the Draft EIR, and we look forward to seeing our comments addressed in the environmental document.

Very truly yours,

Tim Jensen

Tim Jensen
Associate Civil Engineer
Flood Control Engineering

TJ:MC:cw
G:\GrpData\FldCtl\CurDev\CITIES\Lafayette
\EBMUD, WTTI Program\NOP comments.doc

c: Greg Connaughton, Flood Control
Bob Faraone, Flood Control
Rob Tavenier, Maintenance
Henry Finch, Maintenance
Chris Lau, Transportation

2.5 Contra Costa County Flood Control & Water Conservation District

C3FC-1 Comment noted. Please refer to Section 2.1.3, Master Response on EBMUD Obligations to Comply with Local Ordinances, Obtain Local Agency Approvals and Permits, and Pay Local Agency Fees for additional response pertinent to this comment.

C3FC-2 As a local agency and utility district serving a broad regional area, EBMUD is not subject to building and land use zoning ordinances of cities and counties when implementing projects that involve the storage, treatment, or transmission of water (California Government Code Sections 53091 and 53095). EBMUD will nevertheless coordinate closely with the County Flood Control District in order to minimize any adverse consequences of the WTTIP projects on the County's drainage system. Please also refer to Section 2.1.3, Master Response on EBMUD Obligations to Comply with Local Ordinances, Obtain Local Agency Approvals and Permits, and Pay Local Agency Fees for additional response pertinent to this comment.

C3FC-3 See **Response C3FC-2** as well as Section 2.1.3, Master Response on EBMUD Obligations to Comply with Local Ordinances, Obtain Local Agency Approvals and Permits, and Pay Local Agency Fees for additional response pertinent to this comment.

C3FC-4 See **Response C3FC-2**. Please also refer to Section 2.1.3, Master Response on EBMUD Obligations to Comply with Local Ordinances, Obtain Local Agency Approvals and Permits, and Pay Local Agency Fees for additional response pertinent to this comment.

C3FC-5 Comment noted that Flood Control District's previously stated concern regarding natural water courses have been adequately addressed in the DEIR.

C3FC-6 Comment noted that Flood Control District's previously stated concern regarding existing drainage system capacity impacts have been adequately addressed in the DEIR.

C3FC-7 Comment noted. Comment C3FC-6 states that this comment is adequately addressed in Section 3.5 of the DEIR.

C3FC-8 Comment noted. Comment C3FC-6 states that this comment is adequately addressed in Section 3.5 of the DEIR. Please also refer to Section 2.1.3, Master Response on EBMUD Obligations to Comply with Local Ordinances, Obtain Local Agency Approvals and Permits, and Pay Local Agency Fees for additional response pertinent to this comment.

C3FC-9 Comment noted. Comment C3FC-5 states that this comment is adequately addressed in Section 3.5 of the DEIR.

C3FC-10 Section 3.8 of the DEIR, Traffic and Circulation, identifies roads in the vicinity of WTTIP projects and impacts to those roads. Measures are prescribed to mitigate all significant impacts.

C3FC-11 Upcoming projects planned by Contra Costa County are listed and analyzed in DEIR Chapter 5 Cumulative Impacts. Table 5-1 (DEIR pp. 5-13 through 5-32) identifies numerous pavement management and other road improvement projects throughout the WTTIP project area. Henry Finch, the contact person named in the comment letter, was contacted during preparation of the DEIR (p. 5-51). As stated on DEIR p. 5-38, the District has initiated coordination with other agencies regarding the timing of construction projects to minimize disruption to the same locations within the same timeframe.

C3FC-12 Comment noted. As shown on Table 2-13 of the DEIR, the District anticipates applying to the County for an encroachment permit for the Tice Pumping Plant and Pipeline and the Withers Pumping Plant. Please also refer to Section 2.1.3, Master Response on EBMUD Obligations to Comply with Local Ordinances, Obtain Local Agency Approvals and Permits, and Pay Local Agency Fees for additional response pertinent to this comment.

C3FC-13 Measure 3.6-1b would require a substantial amount of replacement trees and in addition other vegetation planting has been proposed. Most of the replacement trees will be planted either at the site where trees are removed or within EBMUD watershed lands. EBMUD will arrange a discussion with the Transportation Engineering Division of Contra Costa County to discuss possible mitigation sites.

Comment Letter EBMUD_NR

EAST BAY MUNICIPAL UTILITY DISTRICT

WATER DISTRIBUTION
JUL 20 2006
PLANNING DIVISION

DATE: July 20, 2006

MEMO TO: Board of Directors

THROUGH: Dennis M. Diemer, General Manager

FROM: Jon A. Myers, Manager of Natural Resources JAM

SUBJECT: Staff Concerns Regarding Proposed Highlands Reservoir Project

The District's East Bay Watershed and Recreation Division staff has expressed concerns (see attached memo) regarding the proposed site selection for the planned Highlands Reservoir. The selected site as described in the draft Water Treatment and Transmission Improvement Program EIR is within the Lafayette Recreation Area. EBMUD_NR-1

Engineering staff will be meeting with Watershed and Recreation staff to review the site selection criteria and process.

JAM:ah

Attachment

Comment Letter EBMUD_NR

July 12, 2006

WATER DISTRIBUTION
JUL 20 2006
PLANNING DIVISION

To: EBMUD Board of Directors

Fm: Natural Resources Staff

Re: Inappropriate Siting of Proposed Highlands Reservoir

EBMUD has proposed an ambitions engineering plan to improve water capacity and pressure in the Lamorina area. Our planning for the future and concern for our customers is exemplary. EBMUD_NR-2

However, part of the proposal is to site the huge new Highlands Reservoir inside the Lafayette Reservoir Recreation Area alongside one the main hiking trails. This visual intrusion on recreation is specifically prohibited by the East Bay Watershed Master Plan. EBMUD_NR-3

To prepare the site for construction, over three-dozen oaks will be clear-cut. This includes many majestic heritage oaks that are over three feet in diameter and probably over 200 years old. We find this choice unacceptable, especially since a half dozen other sites could have been chosen that would do much less environmental harm. EBMUD_NR-4

Oak groves like this one are specifically protected by the EBWMP. We believe that logging the grove would also be a violation of EBMUD's Mission to "protect and preserve our watershed lands for future generations," and hurt our reputation as environmental stewards in the communities we serve.

Please instruct your staff to choose another site for the Highlands Reservoir. Thanks in advance for taking our point of view into consideration. EBMUD_NR-5

Sincerely,

Name (print)	Signature
BOB FLASHER	
Axel Debus	
MARK SILVA	
Karen Baer	
Jim Dunne	
GARY HACKETT	
Aileen Wilson	
ANDREA [illegible]	

2.6 EBMUD Natural Resources

EBMUD_NR-1 Project staff met with the District's East Bay Watershed and Recreation Division staff on July 24, 2006 to listen to their concerns and review the site selection process. In response to these and other, similar comments, the District has revisited potential reservoir layout designs at the preferred site. As a result, EBMUD is proposing to move the reservoir approximately 120 feet north and to use a temporary retaining wall during construction to minimize the number of large oak trees impacted by construction of the new facility.

EBMUD_NR-2 Comment noted.

EBMUD_NR-3 Comment acknowledged. While EBMUD has endeavored to avoid visual impacts, the DEIR concludes that the proposed site would have significant, unavoidable impacts on views from within the watershed area (refer to Section 3.3 in the DEIR). An analysis of the visual impacts associated with the revised site is present in Section 3.3 of this Response to Comments document.

EBMUD_NR-4 Table 3.6-4 indicates that approximately 30 to 35 oak trees with 18-inch dbh or greater may need to be removed at the DEIR-proposed Highland Reservoir site. The removal of a number of large oak trees at this site was recognized as a significant and unmitigable impact in the DEIR. On DEIR p. 3.2-13 it is acknowledged that the proposed project may be inconsistent with EBMUD's *East Bay Watershed Master Plan* Guideline Bio.5 regarding the protection of heritage native trees and trees with outstanding characteristics. Section 6.10.3 in the DEIR (p. 6-62), discusses the nine other potential sites for the Highland Reservoir. The nine candidate sites were screened against five criteria (operational, implementation, environmental, construction, and cost) and the current preferred alternative was determined to best meet these criteria.

In addition, Section 6.6 of the DEIR (p. 6-18), evaluates constructing the Highland Reservoir at an alternative site north of the proposed site to avoid impacts to the grove of large-diameter valley and coast live oaks. Table 6-3 indicates the severity and magnitude of impacts associated with the alternative site relative to impacts of the proposed project. Overall, there would be a tradeoff between impacts to biological resources and impacts to visual quality.

The Natural Resources Staff also presented an alternative site for the Highland Reservoir on the eastern side of the dam. This site was evaluated as fatally flawed by B. Gordon and Burt Marliave in 1954. They concluded that the site is in the middle of an extensive landslide. The landslide has probably not been active for some time, but any construction that upsets the present equilibrium could cause renewed movement. AGS Inc., evaluated the site in September

2006 as part of this study. Test pits dug at the site revealed slide mass material and confirmed the conclusions made in 1954.

Staff believes that the preferred alternative is consistent with EBMUD's Mission Statement. While EBMUD is committed to protecting the environment, this commitment is in context with delivering a safe, clean, and reliable water supply.

As noted in **Response EBMUD_NR-1**, EBMUD has revisited potential reservoir layout designs at the preferred site. As a result, EBMUD is proposing to move the reservoir approximately 120 feet north and to use a temporary retaining wall during construction to minimize the number of large oak trees impacted by construction of the new facility.

EBMUD_NR-5 Refer to **Response EBMUD_NR-4**, above.

LAFAYETTE
SETTLED 1848 — INCORPORATED 1968

September 18, 2006

Judy Zavadil
Senior Project Manager
East Bay Municipal Utility District
375 Eleventh Street (Mail Slot #701)
Oakland, CA 94607-4240

RE: EBMUD Water Treatment and Transmission Improvement Program (WTTIP)– Review of Draft Environmental Impact Report (EIR)

Dear Ms. Zavadil:

Thank you for providing the City of Lafayette the opportunity to respond to the Draft Environmental Impact Report for the East Bay Municipal Utility District's Water Treatment and Transmission Improvements Program. I have reviewed the Draft Environmental Impact Report with members of the City Council, and have identified the following critical issues that need to be addressed within the Final Environmental Impact Report, before the EBMUD Board of Directors determines which alternative to pursue.

Alternatives

The Draft Environmental Impact Report addresses two alternatives. Alternative 1 maintains the Lafayette Water Treatment Plant as one of the three key treatment plants and well as additional minor upgrades to the Orinda and Walnut Creek Water Treatment Plants. Alternative 2 involves decommissioning the Lafayette Water Treatment Plant and constructing a new pipeline and tunnel from the Orinda Water Treatment Plant to serve patrons who would no longer be served via the decommissioned facility. Table 6-11 discusses these two alternatives, as well as four alternative scenarios and ranks them based upon reliability, regulatory and water quality, operations, implementation, environmental impact, and economics. Alternative 1 ranks first in one category and second in four categories, while Alternative 2 ranks first in four categories and third in one category. The City questions the rationale and methodology behind Alternative 1 being the "preferred alternative" while Alternative 2 clearly ranks higher, based upon EBMUD's screening criteria. On August 14, 2006, EBMUD personnel explained that this table was utilized when selecting the alternatives to be reviewed in the Environmental Impact Report and that Alternative 1 is preferred due to redundancy. If redundancy is the key determining factor, thus having more weight than all other criteria, then this table must be revised accordingly and further emphasis should be placed on explaining why redundancy is a more important factor than reliability, environmental impacts, economics, et al. LAF-1

Besides these two alternatives, EBMUD considered expanding the Walnut Creek Water Treatment Plant and decommissioning the Lafayette Water Treatment Plant, upgrades to the Lafayette and Orinda Water Treatment Plants, expanding the Lafayette and Walnut Creek Water Treatment Plants, and expanding the Orinda and Walnut Creek Water Treatment Plants LAF-2

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and decommissioning the Lafayette Water Treatment Plant. If redundancy is the key determining factor, the City requests that additional analysis be provided for Alternative 4, which is a hybrid of Alternatives 1 and 2. LAF-2

Visibility / Aesthetics

While the majority of the proposed development is screened due to topography and existing vegetation, visibility and aesthetics will likely be jeopardized by new construction and removal of existing landscaping. The City requests that EBMUD utilize a darker color palette to aid the development to blend in the natural environment, particularly for the Lafayette Water Treatment Plant, Highland Reservoir, Sunnyside Pumping Plant, and development on hillsides. EBMUD shall utilize natural earth tones, preferably in the brown and green range. The existing body color for the Lafayette Water Treatment Plant is substantially too light and the roof color/material stands out from the environment. The City encourages EBMUD to review their revised colors and materials with the Planning Services Division and potentially with a representative from the Design Review Commission. The City also requests that EBMUD seek review, consultation, and design input of all development and site improvements by the Design Review Commission, prior to construction LAF-3

Currently, the Draft EIR refers to the Highland Reservoir as a significant unavoidable impact in terms of effects on views and scenic vistas. The inadequacy of the visibility analysis for the Highland demands additional review and analysis. No photos have been taken or simulations created from Mt. Diablo Blvd. towards the proposed Highland Reservoir site. No analysis has been relayed from the northwest direction. No photos or photo simulations have been prepared for the Alternative sites, pursuant to Appendix J. The City requests that additional visual analysis (including at least three additional photo simulations) be addressed from public viewpoints towards the proposed site, and for the alternative sites. LAF-4

To further mitigate off-site visibility concerns about the Highland Reservoir, the City requests that EBMUD negotiate with the property owners to purchase the parcels 252-050-014, owned by Ray and Angelina Leal, and 252-050-015, owned by the DeSilva Group Inc. These properties will be used for construction access. Once the project is completed, the parcels shall be owned and maintained by EBMUD and permanently reserved as open space. LAF-5

The City requests that all photographs and photo simulations be dated. LAF-6

Removal of Protected Trees

Table 3.6-4 demonstrates that between 160 and 220 protected trees are proposed to be removed within the City of Lafayette, due to the WTTIP (for Alternative 1). The protected trees to be removed include 15-25 oak trees for the Lafayette Water Treatment Plant, 95-110 oak trees for the Highland Reservoir and Pipelines, 8 oak and alder trees for the Lafayette Reclaimed Water Pipeline, 40-60 oak trees for the Moraga Road Pipeline (located at the Lafayette Reservoir Recreation Area), 10-15 oak trees for the Moraga Road Pipeline (north of Nemea Court), and 3 pine trees for the Sunnyside Pumping Plant. In addition to the removed protected trees, EBMUD anticipates potentially damaging between 99 and 144 protected trees. EBMUD proposes to also remove a significant number of non-protected trees. LAF-7

EBMUD proposes to replace protected trees at a ration of 3:1 for protected trees and 1:1 for non-protected trees. The City encourages EBMUD to utilize the ratio of two 15-gallon replacement trees for every six-inches or fraction of the diameter of the protected tree to be removed. EBMUD shall also include a Table in Section 3.6 Biological Resources, which includes the exact species and size of all protected trees proposed to be removed. The City also encourages EBMUD to utilize a tree species replacement ratio, which reflects the tree species breakdown of the site. For instance, if the site includes 50% Valley Oaks, 25% Coast Live Oaks, and 25% California Buckeye, then 2 Valley Oaks, 1 Coast Live Oak, and 1 California Buckeye shall be planted for every four required replacement mitigation trees. LAF-8 LAF-9 LAF-10

The City has reviewed conceptual landscape plans included in Section 3.3 Visual Quality of the Draft Environmental Impact Report. The City requests that finalized landscape plans be reviewed by the City of Lafayette, the City Landscape Consultant (at the expense of EBMUD), and potentially a representative of the Lafayette Design Review and Planning Commissions to address appropriate tree replacement and screening mitigation. The City is concerned that conceptual landscape plans do not accurately reflect the required mitigation trees discussed in the Draft EIR. (i.e. 44 replacement trees are shown for the Highland Reservoir, where a minimum of 90 replacement trees are required). LAF-11

Traffic, Noise, and Construction Impacts

EBMUD shall adequately post all construction sites with signs that state the permitted hours of construction. The construction signs shall clearly identify the construction project as development initiated by EBMUD and shall provide contact information for inquiries, comments, and complaints, so as to prevent an influx of calls to local government agencies. LAF-12

The City strongly urges EBMUD to reduce its construction hours from 7:00 a.m. - 6:00 p.m. to 8:00 a.m. - 6:00 p.m., Monday through Friday (for *all* noise-generating construction). The City requires that no noise-generating construction be permitted on national holidays. Construction hours shall be further reduced for construction of the Orinda-Lafayette Aqueduct between Upper Happy Valley Road and Bentley School parking lot to not impact traffic prior to and directly after school (if Alternative 2 is selected). The City requests that construction hours be substantially reduced where road closure is necessary, so as to not affect peak-period traffic, which occurs prior to 9:00 a.m. and after 4:00 p.m. Advance notices for all road closures shall be posted at least two weeks in advance at the location of the road closure. All property owners along Glen Road, Nordstrom Lane, Hilltop Drive, and Hastings Court shall be notified at least 21-days in advance of all lane closures associated with the Glen Pipeline Improvements project. LAF-13 LAF-14 LAF-15 LAF-16 LAF-17

The City requests that EBMUD construct a protected walkway along both sides of Mt. Diablo Blvd. between Village Center and the Lafayette Reservoir, which includes a landscaped median and grade change between pedestrian and vehicular use. The design should be very similar or identical to the new walkway that is currently being installed along Pleasant Hill Road south of Mt. Diablo Boulevard. The walkway shall be completed in advance of all construction. Refer to attached plans for design details and specifications. LAF-18

The City requests that EBMUD maintain a detour for the Lafayette Reservoir Rim Trail throughout the entirety of construction of the Highland Reservoir. LAF-19

New Technologies

The Draft Environmental Impact Report discusses a membrane filtration alternative for the Lafayette Water Treatment Plant, which is likely to reduce environmental impacts, with the exception of visual impacts created by two new structures that are approximately 25-feet in height. The City requests that the reliability and feasibility of this technology be further discussed and analyzed in the Final Environmental Impact Report. The City also requests visual analysis, using photo simulation technologies, for this alternative and more refined and specific environmental analysis (i.e. specific number of trees that will be removed with this alternative opposed to alternative 1 without the membrane filtration alternative). LAF-20

Economics / Finances

The Draft EIR fails to analyze the potential financial implications of both alternatives. While EBMUD staff has maintained the position that finances will not play a role in determining the alternative chosen, no documentation or analysis has been presented to date. The City requested that EBMUD address the financial circumstances for both alternatives, in our letter dated January 10, 2006. Despite this request, it appears that no supporting documentation is contained within the Draft EIR. The City reiterates this request. LAF-21

Thank you once again for giving the City of Lafayette the opportunity to offer our comments of the Draft Environmental Impact Report. If you have any questions, please feel free to contact Michael Cass, Planning Technician, at 925.299.3219 or at MCass@ci.lafayette.ca.us.

Sincerely,

Steven Falk
City Manager, City of Lafayette

Enc.: Lafayette Tree Protection Ordinance
Pleasant Hill Road Walkway Construction Drawings

Chapter 6-17

TREE PROTECTION

Sections:

LAF-22

6-1701 Purpose and findings.

(a) Purpose. The City of Lafayette consists of oak woodland and savannah covered hills, and valleys that originally contained many large and majestic trees, orchards and creeks lined with giant valley oak, madrone, buckeye and black walnut trees. Historically, in the course of development, especially for residential purposes, many of these original trees were destroyed. It is now recognized that the preservation of trees enhances the natural scenic beauty, increases property values, encourages quality development, aids in tempering the effect of extreme temperatures, helps to reduce air and noise pollution, furnishes habitat for wildlife and gives Lafayette an identity and quality that enhances the environment for all residents and the business community. The Lafayette general plan has goals and policies for the preservation of the community's biological resources, including its trees, and it is the purpose of this chapter to implement these goals and policies.

(b) Findings. The City Council finds that:

(1) The policies of the city are to protect existing woodlands and their associated vegetation, protect native trees, preserve riparian habitat, encourage the planting of native species, and avoid the cutting of mature trees.

(2) In order to implement these policies and to promote the public health, safety and welfare, it is necessary to protect existing trees and require the replacement of trees that have been destroyed or removed.

(3) Protected trees are valuable assets to the city and the community, and the public shall be compensated when a protected tree is destroyed or removed in a manner that is not in compliance with this chapter.

(Ord. 539 § 1 (part), 2003)

6-1702 Definitions.

In this chapter, unless the context otherwise requires:

(a) "Arborist" is a person having one of the following qualifications:
(1) Current listing as a certified arborist by the International Society of Arboriculture; or
(2) Current American Society of Consulting Arborists registered consulting arborist.

(b) "Arborist report" means a report of an arborist developed in a manner consistent with the guidelines for report writing by the American Society of Consulting Arborists on the following:
(1) Description of the tree's location, genus, species, diameter and dripline;
(2) Health and condition of the tree, including existing hazards to the tree;
(3) Potential impact of development on the tree or existing tree condition;
(4) Evaluation of preservation potential based on the tree's existing condition and in relation to any potential development; and
(5) Recommendations for protection and preservation techniques and requirements, including restorative or other remedial actions that might be feasible to maintain and improve tree health or to assure survival.

LAF-22

(c) "Construction" means the act of placing, erecting, modifying or relocating a structure or the act of preparing property for such work, including clearing, stockpiling, trenching, grading, compaction, paving or change in ground elevation.

(d) "Destroy" means an action that kills or endangers the health or vigor of a tree, and includes excessive or improper pruning, topping, grading, irrigation, application of chemicals, trenching within the drip line or protected perimeter, soil compaction within the protected perimeter, or damage caused to the trunk or primary limbs during construction.

(e) "Developed property" means an existing lot of record that cannot be further subdivided under applicable city regulations and that has an existing legal structure.

(f) "Development application" means an application to subdivide, alter, develop or use a property that, if approved, will require the issuance of a development permit, including a building or grading permit.

(g) "Diameter" means the distance across the tree from outside bark to outside bark with the distance being determined by the circumference of the tree measured at 4.5 feet above the natural grade of the tree (also known as diameter at standard height) and divided by π (3.1416). The diameter of a multi-trunk tree is the sum of the diameters of its component trunks.

(h) "Dripline area" means the soil area surrounding tree trunk whose outer perimeter is defined by the length of the outermost branch tips.

(i) "Manager" means the planning and building services manager or the manager's designee.

(j) "Native riparian tree" means a tree indigenous to a riparian habitat along a perennial or intermittent creek, stream or other watercourse and that is within 30 feet of the top of a creek bank or that is beyond 30 feet but in such proximity to a creek bank that it requires or tolerates soil moisture levels in excess of that available in adjacent uplands.

(k) "Native tree" means a tree indigenous to an oak woodland, chaparral, grassland or riparian habitat.

(l) "Protected area" means the delineated area encompassing the rooting zone of a tree to be protected from encroachment by construction activities. The area is determined by projecting from the base of the trunk two feet for every one inch of trunk diameter.

(m) "Protected tree" means a tree on public or private property meeting one or more of the following standards:

(1) Located on a developed property, that has a trunk diameter of 12 inches or more, and that is one of the following species:

- coast live oak (*Quercus agrifolia*)
- canyon oak (*Q. chrysolepis*)
- blue oak (*Q. douglasii*)
- white oak (*Q. garryana*)
- black oak (*Q. kelloggii*)
- valley oak (*Q. lobata*)
- interior live oak (*Q. wislizenii*)
- California bay (*Umbellularia californica*)
- California buckeye (*Aesculus californica*)
- madrone (*Arbutus menziesii*)

(2) Of any size or species and designated to be protected and preserved as part of an approved development application;

(3) Is a native riparian tree with a trunk diameter of six inches or more or has a multi-trunk with a diameter of four inches or more and that is one of the following species:

- bigleaf maple (Acer marophyllum)
- boxelder (A. negundo)
- California buckeye (Aesculus californica)
- white alder (Alnus rhombifolia)
- black walnut (Juglans hindsii)
- cottonwood (Populus fremontii)
- red willow (Salix laevigata)
- arroyo willow (S. lasiolepis)
- coast live oak (Quercus agrifolia)
- valley oak (Q. lobata)
- California bay (Umbellularia californica)

(4) Of any species with a diameter of six inches or more and located on an undeveloped property;

(5) Is a replacement tree planted as restitution for a violation of this chapter; or

(6) Is a native tree of any size or species within a restricted ridgeline area.

(n) "Pruning" means the removal of tree parts. Proper pruning is performed in a manner intended to achieve a specific goal while minimizing the negative effects on the tree. Improper pruning is that which may be coupled with a specific goal, not employ techniques with the identified goals, or result in negative physiological or structural impacts on the tree. Improper pruning includes topping.

(o) "Remove" means to top excessively, cut down or relocate a tree.

(p) "Restricted ridgeline area" means a class III ridgeline or an area within 400 feet of a class I ridge or 250 feet of a class II ridge, as designated on the Lafayette Area Ridge Map pursuant to subsection 6-2004(a)(1).

(q) "Topping" means a pruning cut that removes the main stem or stems between nodes, buds or laterals or to a lateral branch or limb not large enough to assume the terminal role that would result in serious decay and/or permanent alteration of the tree's structure.

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(r) "Tree" means a large woody perennial plant with one or more trunks that generally reaches a minimum height of ten feet at maturity. It does not include shrubs shaped to tree forms.

(s) "Undeveloped property" means a vacant parcel, a parcel that can be subdivided or developed under applicable city regulations, or a parcel with an existing illegal structure.

(Ord. 539 § 1 (part), 2003)

6-1703 Destruction of a protected tree.

It is a violation of this chapter for any person to destroy a protected tree. (Ord. 539 § 1 (part), 2003)

6-1704 Permit required to remove a protected tree.

No person may remove a protected tree without a category I or category II permit under section 6-1706 or 6-1707. (Ord. 539 § 1 (part), 2003)

6-1705 Exceptions.

A category I or category II permit is not required:

(a) When a hazardous or dangerous condition requires immediate action to protect life or property as determined by the city manager or when the imminent threat is certified by an arborist;

LAF-22

(b) Under emergency conditions when ordered by the city manager, an official of the Contra Costa Consolidated Fire District, or an official of the Contra Costa County Building Department;

(c) To maintain a firebreak on land covered by flammable material, as required by Public Resources Code §4291; or

(d) To maintain an unobstructed flow of water for flood control safety in a creek or other waterways as determined by the city engineer.

(Ord. 539 § 1 (part), 2003)

6-1706 Permit category I — Protected tree on property not associated with a development application.

(a) Permit required. A category I permit is required to remove a protected tree on property not currently associated with a development application or that will not be associated with a development application for a minimum of one year from the date of the issuance of the permit.

(b) Application. An application for a category I permit shall be filed with the manager on a form approved by the city together with a fee fixed by resolution of the City Council. The application shall include the following information:

(1) Identification of the location, species and diameter of each protected tree to be removed;

(2) Statement justifying the permit request; and

(3) Supplemental information as may be necessary for the manager to properly review the application, such as photographs or an arborist report concerning the health and quality of the tree and possible alternative actions.

(c) Application review. The manager shall review the application and inspect the subject tree. The manager may refer the application to a city commission or the City Council. The manager may refer the application to an arborist or landscape consultant with arborist certification for additional review and report. The applicant shall pay the costs of this additional review and report.

(d) Determination. Within 30 days of deeming an application complete, the manager shall approve or deny the application. If the application is referred to a city commission or the City Council, the application shall be approved or denied within 60 days of the date the application is deemed complete. In acting on the application, the manager, or committee, commission or City Council, shall consider the following factors:

(1) Health, condition and form of the tree;

(2) Number, size and location of other trees to remain in the area;

(3) Relationship of the property to ripanan corridors, a scenic or biological resource area or a restricted ridgeline area;

(4) Role of the tree in a tree grove or woodland habitat;

(5) Value of the tree to the neighborhood in terms of visual effect, wind screening and privacy; LAF-22

(6) Damage caused by the tree to utilities, streets, sidewalks or existing private structures or improvements;

(7) Role of the tree in mitigating drainage, erosion or geologic stability impacts; and

(8) Health and condition of the area within the protected perimeter.

(e) Permit conditions. The permit may include reasonable conditions, such as planting replacement trees pursuant to subsection 6-1707(G).

(f) Expiration of permit. The permit is valid for 60 days from the date of issuance unless a longer period is stated in the permit. If the applicant does not begin the work authorized by the permit by the expiration date, the permit shall expire.

(Ord. 539 § 1 (part), 2003)

6-1707 Permit category II — Protected tree on property associated with a development application.

(a) Permit required. A category II permit is required if the proposed construction may result in the destruction or removal of a protected tree.

(b) Application. An application for a category II permit shall be filed with the manager concurrently with the development application. The category II application shall be on a form approved by the city together with a fee fixed by resolution by the City Council. The application shall include the following information:

(1) Depending on the type of development application, one of the following is required:

(A) Site plan showing the trunk location, diameter, species and dripline of each protected tree within 50 feet of any proposed construction on the subject property

and adjacent properties and indicating which protected tree is proposed to be pruned or removed; or

(B) For those development applications that require a survey by a licensed surveyor or engineer, a field-verified topographical survey showing the trunk location, elevation at the base, diameter, species and accurate dripline of each protected tree within 100 feet of any proposed construction on the subject property and adjacent properties, and a table that identifies each protected tree, its diameter and species, and whether the tree is proposed to be pruned or removed; and

(2) Arborist report;

(3) Statement justifying the removal of each protected tree;

(4) Evidence of compliance with the requirements of responsible agencies for the removal of a protected tree if applicable; and

(5) Supplemental information required by the manager.

(c) Application review. The category II permit application shall be reviewed concurrently with the development application by the manager, design review commission, planning commission or City Council as required by type of development application. The time limit associated with the review of the development application applies to the review of the category II permit application. The manager may refer the applicant's arborist report to an arborist for peer review. The applicant shall pay the cost of a peer review. LAF-22

(d) Determination. The application shall be approved or denied by the manager, design review commission, planning commission or City Council based on the factors in subsection 6-1706(D) and the following additional factors:

(1) Necessity for the pruning or removal in order to construct a required improvement on public property or within a public right-of-way or to construct an improvement that allows reasonable economic enjoyment of private property;

(2) Extent to which a proposed improvement may be modified to preserve and maintain a protected tree; and

(3) Extent to which a proposed change in the existing grade within the protected perimeter may be modified to preserve and maintain a protected tree.

(e) Permit condition. An approved category II permit shall include a condition where the applicant shall guarantee the health and vigor of each protected tree to be preserved during construction as provided in subsection (f) of this section and shall enter into a landscape maintenance agreement with the city assuring the long-term maintenance of the protected trees. The applicant shall replace a protected tree that is destroyed as provided in section 6-1710.

(f) Tree protection during construction. The applicant shall comply with the following requirements:

(1) Before the start of construction, the applicant shall install fencing per city specifications at the perimeter of the protected area, or other area identified in an arborist report, of each protected trees to be preserved as shown on the approved construction plans. The manager shall inspect and approve the fencing and its location before the issuance of a development permit.

(2) No construction may occur within the perimeter of the protected area unless approved as a condition of the application. The manager may require an arborist to be present to observe the construction and prepare a report identifying further requirements for tree protection upon completion of construction.

(3) No construction may occur within the perimeter of the protected area until pruning of the tree required for access of construction equipment is completed under the supervision of an arborist.

(4) Under each circumstance where an arborist is required to supervise or observe construction, the arborist may require additional mitigation measures or halt construction if necessary to protect the subject trees. The applicant shall pay the costs of an arborist's supervision or observation.

(5) The parking or storing of a vehicles, construction trailers, equipment and material shall not be allowed within the perimeter of the protected area of a tree to be preserved.

(g) Protected tree replacement. When the removal of a protected tree is permitted, the applicant shall comply with the following requirements:

(1) For each six inches or its fraction of the diameter of the tree to be removed, two 15-gallon trees shall be planted. If the tree that is removed is listed in subsections 6-1702(m)(1) and 6-1702(m)(3), each replacement tree shall be of the same genus and species as the removed tree. The manager may require larger trees for the benefit of the project. In addition, the manager, design review commission, planning commission or City Council may substitute a lesser number of larger trees or another species based on the finding from an arborist that such a substitution will be more beneficial to the health and vigor of other protected trees on the property. LAF-22

(2) If the property associated with the development application cannot accommodate a replacement tree, as a condition of the permit, the applicant shall make an in-lieu payment of an amount set by resolution by the City Council for each 15-gallon replacement tree. The in-lieu payment shall be used by the city for a tree education or tree-planting program.

(h) Permit expiration. A permit is valid for the same period of time as the approved development permit. If the work authorized by the permit is not started before the expiration date, the permit expires.

(Ord. 539 § 1 (part), 2003)

6-1708 Appeal.

An appeal of a decision made pursuant to this chapter is governed by Sections 6-225 through 6-238. (Ord. 539 § 1 (part), 2003)

6-1709 Restriction on the issuance of a development permit.

A development permit may not be issued for construction on a property upon which a protected tree was destroyed or removed without a permit for a period of five years from the date of violation as determined by the manager. The manager may waive this time limit if the tree is replaced as

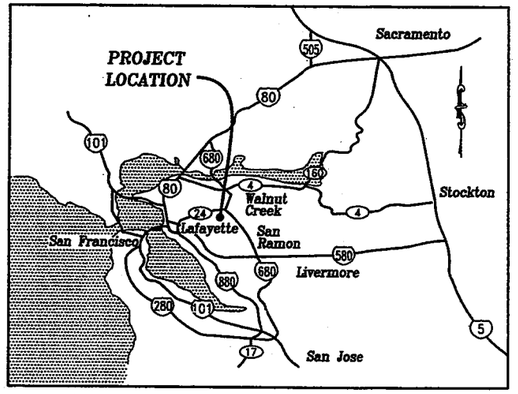
CITY OF LAFAYETTE

PLEASANT HILL ROAD MULTI-PURPOSE PATH IMPROVEMENTS

(MT DIABLO BOULEVARD TO RELIEZ STATION ROAD)

PROJECT NO. 014-9654

FEDERAL AID PROJECT NO. STPL – 5404 (014)



LOCATION MAP

NTS

GENERAL NOTES:

1. THE IMPROVEMENT PLANS FOR PLEASANT HILL ROAD HAVE BEEN PREPARED USING THE TOPOGRAPHIC SURVEY SUPPLIED BY ENKE AND ASSOCIATES IN AUGUST, 2004.
2. UNDERGROUND FACILITIES AND OBSTRUCTIONS INDICATED ARE FOR INFORMATION ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE LOCATION AND ELEVATION OF ALL EXISTING UTILITIES WITHIN THE WORK AREA PRIOR TO BEGINNING CONSTRUCTION. CONTRACTOR SHALL NOTIFY UNDERGROUND SERVICE ALERT (U.S.A.) AT (800) 227–2600 A MINIMUM OF TWO WORKING DAYS IN ADVANCE OF ANY EXCAVATION. EXCAVATION SHALL NOT BEGIN UNTIL UNDERGROUND UTILITIES HAVE BEEN LOCATED.
3. THE CONTRACTOR SHALL NOTIFY THE APPROPRIATE AGENCIES PRIOR TO THE START OF ANY WORK WHICH MAY AFFECT THEIR FACILITIES. THE FOLLOWING UTILITIES AND AGENCIES ARE KNOWN TO HAVE FACILITIES WITHIN THE PROJECT LIMITS:

CENTRAL CONTRA COSTA SANITARY DISTRICT	(925) 228–9500
EAST BAY MUNICIPAL UTILITY DISTRICT (WATER)	(510) 287–0834
SBC (TELEPHONE)	(415) 542–9000
PACIFIC GAS & ELECTRIC (GAS)	(510) 784–3211
PACIFIC GAS & ELECTRIC (ELECTRIC)	(510) 784–3236
CITY OF LAFAYETTE ENGINEERING SERVICES (STORM DRAIN)	(925) 284–1951
CONSOLIDATED FIRE PROTECTION DISTRICT	(925) 930–5531
COMCAST (CABLE TELEVISION)	(925) 349–3300
SPRINT	(650) 513–2545

4. THE CONTRACTOR SHALL INSPECT THE PROJECT SITE PRIOR TO SUBMITTING A BID IN ORDER TO OBSERVE AND DETERMINE THE EXISTING SITE CONDITIONS.
5. TRAFFIC CONTROL DURING CONSTRUCTION SHALL BE THE CONTRACTOR'S RESPONSIBILITY. ALL TRAFFIC CONTROL AND DEVICES SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "MANUAL OF TRAFFIC CONTROLS FOR CONSTRUCTION AND MAINTENANCE WORK ZONES" ISSUED BY THE STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION.
6. THE CONTRACTOR SHALL ASSUME COMPLETE RESPONSIBILITY FOR THE JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT. THESE PLANS DO NOT INCLUDE COMPONENTS NECESSARY FOR CONSTRUCTION SAFETY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE FOR THE SAFETY OF ALL PERSONS AND PROPERTY DURING THE COURSE OF THE PROJECT.
7. THE CONTRACTOR SHALL COMPLY WITH THE RULES AND REGULATIONS OF CAL/OSHA. THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.
8. THE CONTRACTOR SHALL PROVIDE FOR CONTINUOUS INGRESS AND EGRESS TO ALL PUBLIC AND PRIVATE PROPERTIES ADJACENT TO THE WORK THROUGHOUT THE PERIOD OF CONSTRUCTION.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGES TO THE SITE OR THE SURROUNDING AREA AS A RESULT OF THE CONTRACTOR'S WORK OR OPERATIONS. EXISTING CURB, GUTTER AND OTHER IMPROVEMENTS THAT ARE DAMAGED OR DISPLACED BY THE CONTRACTOR SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
10. THE CONTRACTOR SHALL LOCATE, REFERENCE, AND SET SUFFICIENT MARKS FOR ALL CITY OWNED AND NON–CITY OWNED EXISTING MANHOLE COVERS, VALVE COVERS, SURVEY MONUMENTS, IRON PIPES, RAILROAD SPIKES, ETC., PRIOR TO STARTING ANY WORK IN THE PAVEMENT AREA WITHIN THE PROJECT LIMITS.
11. THE CONTRACTOR SHALL ADJUST EXISTING STORM DRAIN MANHOLES AND SURVEY MONUMENT FRAMES AND LIDS TO GRADE. EACH UTILITY COMPANY AND AGENCY WILL BE RESPONSIBLE FOR ADJUSTING THEIR FACILITIES. THE CONTRACTOR SHALL NOTIFY AND COORDINATE THIS WORK WITH THE UTILITY COMPANIES.
12. THE FINAL ADJUSTMENT TO FINISHED GRADE OF ALL STORM DRAIN MANHOLES AND SURVEY MONUMENTS SHALL BE MADE FOLLOWING PLACEMENT OF THE ASPHALT CONCRETE OVERLAY.
13. DIMENSIONS SHOWN ARE TO FACE OF CURB OR DIKE UNLESS OTHERWISE NOTED.

APPLICABLE STANDARD PLANS

INCLUDE BUT ARE NOT LIMITED TO THE FOLLOWING:

CALTRANS STANDARD PLANS FOR CONSTRUCTION OF LOCAL STREETS AND ROADS DATED JULY 2002 (EXCEPT ALL WORK WITHIN CALTRANS R/W SHALL BE PER CALTRANS STANDARD PLANS DATED 2004)

A20	A,B,C,D	PAVEMENT MARKERS AND TRAFFIC LINES, TYPICAL DETAILS
A24	A,B,C,D,E	PAVEMENT MARKINGS, ARROWS, SYMBOLS, WORDS AND CROSSWALKS
A87		CURBS, DIKES AND DRIVEWAYS
ES–1	A,B,C	SIGNAL, LIGHTING AND ELECTRICAL SYSTEMS
ES–2	A,C,D	SIGNAL, LIGHTING AND ELECTRICAL SYSTEMS
ES–3	C	SIGNAL, LIGHTING AND ELECTRICAL SYSTEMS
ES–4	A,B,C,D,E	SIGNAL, LIGHTING AND ELECTRICAL SYSTEMS
ES–5	A,B,C,D	SIGNAL, LIGHTING AND ELECTRICAL SYSTEMS
ES–6	A	LIGHTING STANDARDS
ES–7	A,B,C,E,F,M,N	SIGNAL AND LIGHTING STANDARDS
ES–8		SIGNAL, LIGHTING AND ELECTRICAL SYSTEMS
ES–10		SIGNAL, LIGHTING AND ELECTRICAL SYSTEMS
ES–11		SIGNAL, LIGHTING AND ELECTRICAL SYSTEMS
ES–13	A,B	SIGNAL, LIGHTING AND ELECTRICAL SYSTEMS
RSP	A88 A,B	CURB RAMP DETAILS
T11		TRAFFIC CONTROL SYSTEM FOR LANE CLOSURE ON MULTILANE CONVENTIONAL HIGHWAYS

CONTRA COSTA COUNTY STANDARD DETAILS (LATEST EDITION)

CA73i	CONCRETE VALLEY GUTTER AND CONCRETE LINED DITCH DETAILS
CA90i	MAILBOX DETAILS
CD11i	INLET FRAME AND GRATE
CD16i	STANDARD MANHOLE ON EXISTING TYPE "C" INLET BASE
CD20i	TYPE "A" INLET
CD21i	TYPE "B" INLET
CD30i	PRECAST MANHOLE, TYPE I BASE, FRAME & COVER
CD31i	TYPE II MANHOLE BASE

CONTRACTOR TO VERIFY EXISTING UTILITY LOCATIONS PRIOR TO ANY EXCAVATION CALL USA AT (800) 227-2600

SHEET INDEX

LEGEND

SYMBOL PROPOSED	SYMBOL EXISTING	DESCRIPTION
		STORM DRAIN
	D	STORM DRAIN MANHOLE
		EX FENCE
	CB	CATCH BASIN
	SS	SANITARY SEWER LINE
	SSMH	SANITARY SEWER MANHOLE
	SSRIO	SANITARY SEWER RODDING INLET
	W	WATER LINE
	WVO	WATER VALVE
	WM	WATER METER
	G	GAS LINE
	GVO	GAS VALVE
	FH	FIRE HYDRANT
	E	UNDERGROUND ELECTRICAL LINE
	E OR PG&E	PG&E VAULT
	T	UNDERGROUND TELEPHONE LINE
	TV	UNDERGROUND CABLE TV LINE
	OPP	POWER POLE
	SP	SIGNAL POLE
	T PH	TELEPHONE VAULT/MH
		SURVEY CONTROL POINT
	MON	SURVEY MONUMENT W/FRAME & COVER
		STREET SIGN
		AC DITCH
		EARTH SWALE
1/X		DETAIL No. / SHEET No.
1		CORE LOCATION AND CORE NO.
		AC DWY CONFORM PAVING
		6' WEDGE GRIND
		NEW AC PATHWAY
		LIMIT OF AC OVERLAY
		LIMIT OF BASE FAILURE REPAIR
		AC ROADWAY CONFORM PAVING

ABBREVIATIONS

AC	ASPHALT CONCRETE	F	FACE	RAD	RADIUS POINT
AB	AGGREGATE BASE	FACP	FRONT OF AC PATH	RCP	REINFORCED CONCRETE PIPE
BACP	BACK OF AC PATH	F/C	FACE OF CURB	REL	RELATIVE
BC	BEGIN CURVE	F/F	FACE OF CURB TO FACE OF CURB	RET	BEGIN/END CURB RETURN
BSW	BACK OF SIDEWALK	F/W	FACE OF WALL	R/W	RIGHT OF WAY
C&G	CURB AND GUTTER	FG	FINISH GRADE	SW	SIDEWALK
CB	CATCH BASIN	GALV	GALVANIZED	STA	STATION
CCC	CONTRA COSTA COUNTY	IP	IRON PIPE	SL, S	STATION LINE
CCL	CROWN CONTROL LINE	LF	LINEAR FEET	SD	STORM DRAIN
CIDH	CAST–IN–DRILL–HOLE	LIP	LIP OF GUTTER	STD	STANDARD
CL, C	CENTER LINE	MAX	MAXIMUM	TC	TOP OF CURB
CONST	CONSTRUCT	MIN	MINIMUM	TD	TOP OF DIKE
CMP	CORRUGATED METAL PIPE	MBGR	METAL BEAM GUARD RAILING	(T)	TOTAL LENGTH
CR	CURB RETURN	MSA	MAXIMUM SIZE AGGREGATE	TYP	TYPICAL
CTB	CEMENT TREATED BASE	NTS	NOT TO SCALE	VG	VALLEY GUTTER
D/W	DRIVEWAY	OC	ON CENTER	W	WHITE
EC	END CURVE	PCC	PORTLAND CEMENT CONCRETE	Y	YELLOW
EP	EDGE OF PAVEMENT	PROP	PROPOSED		
EX	EXISTING	PVMT	PAVEMENT		

AZARI ENGINEERING, INC.
4807 CLAYTON ROAD, SUITE 200
CONCORD, CA 94521
TEL: (925) 676-3700
FAX: (925) 676-4800

REGISTERED PROFESSIONAL ENGINEER — MICHAEL AZARI — No. C 41731 — Exp. 03-31-06 — CIVIL — STATE OF CALIFORNIA

SUBMITTED JULY 19, 2005 — PROJECT ENGINEER

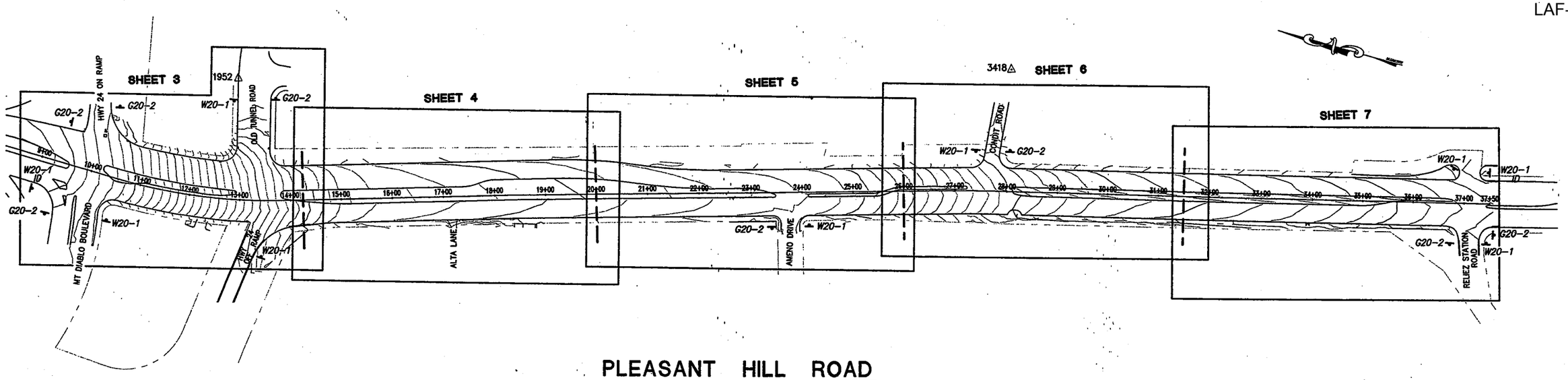
APPROVED August 4, 2005 — CITY ENGINEER

RECORD DRAWING (NO WARRANTY AS TO ACCURACY)
DATE ACCEPTED _____
PROJECT ENGINEER

REVISIONS NO.	DESCRIPTION	BY	DATE

DESIGNED: MA/JDV | PROJECT NO.: 014–9654 | SCALE: NO SCALE
DRAWN: JJH | ROLL FRAME
CHECKED: MA | AEI NO: 2307 | SHEET 1 OF 38
DATE: JULY 19, 2005 | DWG: 2307–1TS

CITY OF LAFAYETTE
PLEASANT HILL ROAD MULTI-PURPOSE PATH IMPROVEMENTS
TITLE SHEET



PLEASANT HILL ROAD
KEY MAP AND CONSTRUCTION AREA SIGNS

PLEASANT HILL ROAD STATION LINE (SL) ALIGNMENT DATA

Desc.	Station	Spiral/Curve Data		Northing	Easting
PC	6+35.85			2153120.6572	6101223.6063
RP				2153024.9465	6099717.6447
		Delta:	04-04-22		
		Radius:	1509.00		
		Length:	107.27		
		Chord:	107.24	Course: S 01-36-00 E	
PT	7+43.12			2153013.4558	6101226.6009
		Length:	301.46	Course: S 00-26-11 W	
PC	10+44.58			2152712.0018	6101224.3054
RP				2152703.6940	6102315.2737
		Delta:	17-38-04		
		Radius:	1091.00		
		Length:	335.79		
		Chord:	334.46	Course: S 08-22-51 E	
PT	13+80.37			2152381.1105	6101273.0545
		Length:	446.35	Course: S 17-11-53 E	
PC	18+26.72			2151954.7136	6101405.0312
RP				2151363.3598	6099494.4552
		Delta:	00-49-33		
		Radius:	2000.00		
		Length:	28.83		
		Chord:	28.83	Course: S 16-47-07 E	
PT	18+55.55			2151927.1152	6101413.3559
		Length:	836.85	Course: S 16-22-20 E	
PC	26+92.40			2151124.1970	6101649.2458
RP				2150560.4416	6099730.3452
		Delta:	02-22-09		
		Radius:	2000.00		
		Length:	82.70		
		Chord:	82.69	Course: S 15-11-16 E	
PT	27+75.10			2151044.3919	6101670.9101
		Length:	974.90	Course: S 14-00-11 E	
	37+50			2150098.4616	6101906.8121

PLEASANT HILL ROAD CONTROL POINTS

Point	Northing	Easting	Elevation	Description
1952	2152525.2190	6101478.4000	258.33	CS 1
3418	2151073.9590	6101907.8550	234.65	CS 22\702
3419*	2151086.9620	6102058.8250	233.76	CS OLD 4 MON
3224*	2153454.0340	6101158.3710	293.94	NAIL\CAL TRANS

* NOT SHOWN ON KEY MAP – OUTSIDE WORK LIMITS

PLEASANT HILL ROAD EXISTING PAVEMENT AND CORE DATA

CORE NO	CORE DIA	AC THICKNESS	CTB THICKNESS	SUBGRADE CLASSIFICATION AND CONDITION
①	2-3/4"	3-1/2"	N/A	N/A
②	8"	4"	9"	BROWN CLAYEY SAND W/GRAVEL, DRY
③	2-3/4"	3"	N/A	N/A
④	8"	5-3/4"	7-1/4"	BROWN CLAY, DRY
⑤	8"	4-1/4"	8-3/4"	BROWN CLAYEY SAND W/GRAVEL
⑥	2-3/4"	3-1/2"	N/A	N/A
⑦	8"	3-3/4"	10"	BROWN CLAYEY SAND W/GRAVEL, DRY
⑧	2-3/4"	5-3/4"	N/A	N/A

CONSTRUCTION AREA SIGNS:

TYPE	DESCRIPTION & SIZE	QUANTITY
ID	PROJECT IDENTIFICATION/FUNDING	2 EA
W20-1	"ROAD WORK AHEAD" (36"x36")	8 EA
G20-2	"END ROAD WORK" (42"x18")	9 EA
		19 TOTAL

CONSTRUCTION AREA SIGN NOTES:

1. THE LOCATION FOR EACH SIGN SHALL BE APPROVED IN ADVANCE BY THE ENGINEER. UNLESS OTHERWISE SHOWN ON THE PLANS, SIGNS SHALL BE MOUNTED ON 4"x4" WOOD POSTS, SECURELY BURIED IN THE GROUND. (PROJECT IDENTIFICATION/FUNDING SIGN PANELS SHALL BE MOUNTED ON TYPE III BARRICADES.)
2. ALL EXCAVATION FOR CONSTRUCTION AREA SIGNS SHALL BE DONE BY METHODS USING HAND TOOLS WITHOUT THE USE OF POWER TOOLS OR DRILLS. EXISTING UTILITIES SHALL BE MARKED BY UNDERGROUND SERVICE ALERT (USA TEL.: 1-800-227-2600) PRIOR TO COMMENCING ANY EXCAVATION.

CONTRACTOR TO VERIFY EXISTING UTILITY LOCATIONS PRIOR TO ANY EXCAVATION CALL USA AT (800) 227-2600

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SUBMITTED JULY 19, 2005
PROJECT ENGINEER

REGISTERED PROFESSIONAL ENGINEER — MIRZAD AZARI — No. C 41731 Exp. 03-31-06 — CIVIL — STATE OF CALIFORNIA

APPROVED _____ 2005
CITY ENGINEER

RECORD DRAWING
(NO WARRANTY AS TO ACCURACY)
DATE ACCEPTED _____
PROJECT ENGINEER

REVISIONS NO.	DESCRIPTION	BY	DATE

CITY OF LAFAYETTE
PLEASANT HILL ROAD
MULTI-PURPOSE PATH IMPROVEMENTS
KEY MAP & CONSTRUCTION AREA SIGNS

DESIGNED: MA/JDV	PROJECT NO.: 014-9654	SCALE: 1"=100'	
DRAWN: JJH	ROLL FRAME		
CHECKED: MA	AEI NO: 2307	SHEET 2 OF 38	
DATE: JULY 19, 2005	DWG: 2307-KM		

PLEASANT HILL ROAD

HWY 24 ON RAMP

LIMIT OF WORK

CALTRANS R/W

CITY OF LAFAYETTE R/W

SEE RIGHT MATCH LINE

OLD TUNNEL ROAD

MT DIABLO BOULEVARD

EASTBOUND ON-RAMP BASELINE

10+00.00=0+00.00

10+61.52, 37.48' RT-RET
TC 281.31

10+34.11, 73.29' RT-RET
TC 282.29

CR 1, SEE NOTE 1

CONSTRUCT 6" VERTICAL CURB PER DETAIL

REMOVE EX MEDIAN CURB & SURFACING. CONSTRUCT 5' WIDE PASSAGE WAY PER DETAIL

CONSTRUCT PCC CURB PER DETAIL

6' WEDGE GRIND (TYP)

0.17' AC OVERLAY W/FABRIC

LEVELING COURSE SEE SHEET 11

EX LANDSCAPING TO REMAIN

R&R EX CURB, GUTTER & SIDEWALK

EX CURB, GUTTER & SIDEWALK TO REMAIN

R&R C, G & SW TO CONSTRUCT CURB RAMP. PROTECT EX IRRIG SYSTEM & LANDSCAPING

REPLACE EX DAMAGED TRAFFIC SIGNAL BOX (IN KIND W/SAME MARKINGS)

CONSTRUCT PCC CURB RAMP, CASE C

REMOVE EX PAD AT CONTROLLER. CONST NEW CONC PAD TO MATCH PROP SW. SEE SIGNAL PLANS FOR DETAIL

BEGIN R&R PCC C&G & SW
10+35.03, 77.90' RT
CONFORM TO EX
TC 282.31±

13'± NEW 6" CURB PER DETAIL

12+18.0±, 57.7'± RT
END R&R 6" CURB

EX TC 272.4±, MATCH EX
EX PVMT 271.9±, CONFORM

12+28.07, 57.7'± RT
EX PVMT 271.3±, CONFORM

12+38.1±, 57.7'± RT
END R&R 6" CURB

EX TC 271.7±, MATCH EX
EX PVMT 271.2±, CONFORM

CONSTRUCT PCC CURB RAMP, CASE B

CONSTRUCT PCC CURB RAMP PER DETAIL

CB #1, TYPE A INLET W/TYPE II MH BASE
13+15.45, 35.70' RT
TC 266.39, FL 256.27±

REMOVE EX INLET TOP
CONSTRUCT MH TOP OVER EX BASE

12+40.49, 44.89' RT
PARKING LOT TC 271.78
BACK S/W 271.28 GB

REMOVE EX PAD AT CONTROLLER. CONST NEW CONC PAD TO MATCH PROP SW. SEE SIGNAL PLANS FOR DETAIL

13'± NEW 6" CURB PER DETAIL

END R&R PCC C&G
13+15.72, 60.70' RT
CONFORM TO EX

BEGIN R&R PCC C&G
CONFORM TO EX
13+59.57, 101.68' LT
TC 262.89±

CONSTRUCT PCC CURB RAMP, CASE A

CR 8, SEE NOTE 1

CONSTRUCT PCC CURB RAMP, CASE A

CR 2, SEE NOTE 1

CR 3, SEE NOTE 1

CONSTRUCT PCC CURB RAMP, CASE A

BEGIN PCC SW
13+52.31, 51.56' RT

INSTALL REMOVABLE WOOD BOLLARD PER DETAIL

REMOVE EX PAD TO ELECTRIC SERVICE CABINET. CONSTRUCT NEW PAD TO MATCH PROP PATH

END PCC SW PATH
BEGIN AC 38.37'
13+68.38, 37.40' RT
TC 262.58-RET

END NEW AC DIKE, TYPE A
BEGIN PCC C&G
13+46.62, 61.56' RT-RET
TC 263.84

REMOVE EX C&G AND EX PVMT SECTION SEE DETAILS

BEGIN REMOVE EX CURB
BEGIN NEW AC DIKE, TYPE A
13+28.05, 71.42' RT
MATCH EX AC DIKE

CITY OF LAFAYETTE R/W
13+59.27, 92.23' LT-RET
TC 262.84 R=35.0'
BEGIN PCC C&G
13+60.21, 84.16' LT

GUY WIRE AND ANCHOR TO BE RELOCATED BY PG&E

END PCC SW
13+61.85
TC 262.58-RET

SEE NOTE 2

MATCH LINE SEE SHEET 14

CR 1, SEE NOTE 1

CR 2, SEE NOTE 1

CR 3, SEE NOTE 1

SEE NOTE 2

SEE NOTE 3

LIMIT OF WORK

HWY 24 OFF RAMP

CONSTRUCT 6" VERTICAL CURB PER DETAIL

10+44.38 BC
10'

11+00

12+00

13+00

W=22'

4'

CONFORM

LIMIT OF WORK

6' WEDGE GRIND (TYP)

0.17' AC OVERLAY W/FABRIC

OLD TUNNEL ROAD

SEE LEFT MATCH LINE

N BUCHANAN DR

CALTRANS RIGHT OF WAY

PROPOSED TC-RT

EX GRADE AT PROPOSED LIP OF GUTTER-RT

10+61.52-37.48' RT, CR
TC 281.31

11+00.00-36.38' RT, GB
TC 279.52

11+50.00-35.40' RT
TC 276.68

11+64.32-35.20' RT, GB
TC 275.85

12+00.00-34.91' RT
TC 273.63

12+50.00-34.93' RT
TC 270.49

13+00.00-35.45' RT
TC 267.55

13+28.07-35.84' RT
TC 265.97

CR-13+82.38-37.40' RT
TC 262.58

13+90.95-60.98' LT-CR
TC 261.85

EC 14+23.90-39.00' RT
TC 260.85

STA 14+25
SEE SHEET 4
MATCH LINE

13+75.00-61.02' LT BVC
TC 262.46

190' (T) VC
e=1.08'

4.65%

5.69%

6.27%

4.17%

CURVE DATA NEW C&G

NO	DESCRIPTION	NO	DESCRIPTION
①	R = 30.00' L = 51.74' Δ = 98°49'20"	④	R = 40.00' L = 47.13' Δ = 67°30'40"
②	R = 1429.00' L = 269.07' Δ = 10°47'17"	⑤	R = 30.00' L = 42.79' Δ = 81°43'00"
③	R = 2.00' L = 3.84' Δ = 109°59'30"	⑥	R = 30.00' L = 48.48' Δ = 92°35'57"

NOTES

1. FOR CURB RETURN (CR) ELEVATION DATA, SEE SHEET 17.
2. FOR SIGN RELOCATION, REMOVAL OR INSTALLATION SEE SIGNING AND STRIPING PLAN.
3. TRANSITION SIDEWALK CROSS SLOPE FROM 2% TOWARD CURB AT STA 12+75 TO 2% TOWARD BACK OF SIDEWALK AT STA 13+00

UTILITY LEGEND

1. RAISE SDMH TO GRADE
2. RAISE SSMH TO GRADE (BY CCCSD)
3. RAISE WATER VALVE TO GRADE (BY EBMUD)
4. RAISE TELEPHONE MH/VALVE TO GRADE (BY SBC)
5. RAISE TRAFFIC SIGNAL BOX TO GRADE
6. RAISE WATER METER TO GRADE
7. RAISE FIRE HYDRANT TO GRADE (BY EBMUD)
8. RAISE PG&E VAULT TO GRADE (BY PG&E)
9. RAISE ELEC BOX TO GRADE

CONTRACTOR TO VERIFY EXISTING UTILITY LOCATIONS PRIOR TO ANY EXCAVATION CALL USA AT (800) 227-2600

AZARI ENGINEERING, INC.
4807 CLAYTON ROAD, SUITE 200
CONCORD, CA 94521
TEL: (925) 676-3700
FAX: (925) 676-4800

SUBMITTED JULY 19, 2005
PROJECT ENGINEER

REGISTERED PROFESSIONAL ENGINEER No. C 41731 Exp. 03-31-06 CIVIL STATE OF CALIFORNIA

APPROVED _____ 2005
CITY ENGINEER

RECORD DRAWING
(NO WARRANTY AS TO ACCURACY)
DATE ACCEPTED _____
PROJECT ENGINEER

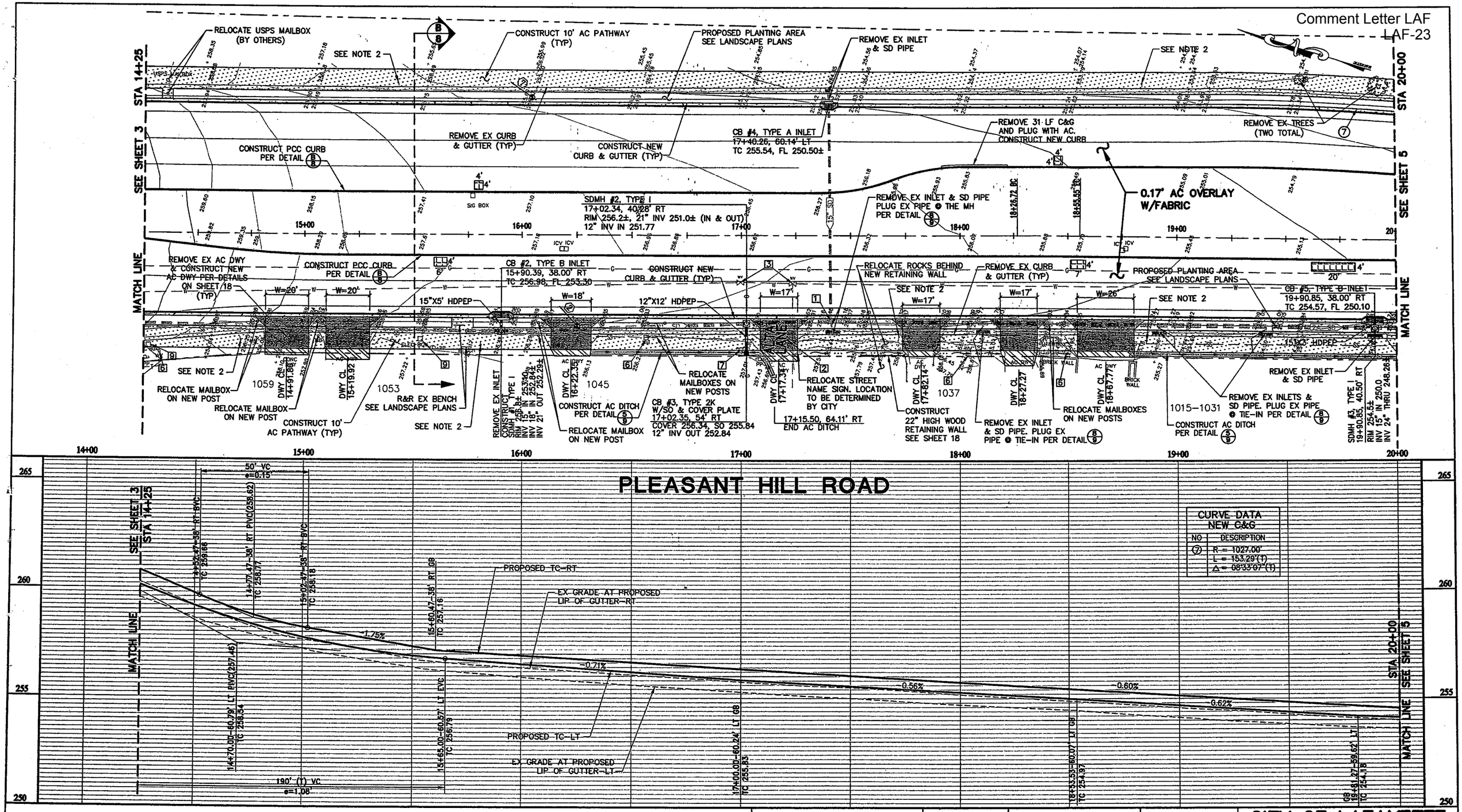
NO.	DESCRIPTION	BY	DATE

CITY OF LAFAYETTE

PLEASANT HILL ROAD MULTI-PURPOSE PATH IMPROVEMENTS

PLAN AND PROFILE STA 10+00 TO STA 14+25

DESIGNED: MA/JDV	PROJECT NO.: 014-9654	SCALE:	H 1"=20' V 1"=2'
DRAWN: JJH	ROLL - FRAME		
CHECKED: MA	AEI NO: 2307	SHEET	3 OF 38
DATE: JULY 19, 2005	DWG: 2307--PL1		



CURVE DATA
NEW C&G

NO	DESCRIPTION
⑦	R = 1027.00' L = 153.29'(T) Δ = 08°33'07"(T)

NOTES

1. PROPOSED DRIVEWAY DETAILS, ELEVATIONS AND CONFORMS ARE SHOWN ON SHEET 18.
2. FOR SIGN RELOCATION, REMOVAL OR INSTALLATION SEE SIGNING AND STRIPING PLAN.

UTILITY LEGEND

1. RAISE SDMH TO GRADE
2. RAISE SSMH TO GRADE (BY CCCSD)
3. RAISE WATER VALVE TO GRADE (BY EBMUD)
4. RAISE TELEPHONE MH/VALVE TO GRADE (BY SBC)
5. RAISE TRAFFIC SIGNAL BOX TO GRADE
6. RAISE WATER METER TO GRADE
7. RAISE FIRE HYDRANT TO GRADE (BY EBMUD)
8. RAISE PG&E VAULT TO GRADE (PG&E)
9. RAISE ELEC BOX TO GRADE

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REGISTERED PROFESSIONAL ENGINEER — No. C 41731 Exp. 03-31-06 — CIVIL — STATE OF CALIFORNIA

SUBMITTED JULY 19, 2005
PROJECT ENGINEER

APPROVED _____ 2005
CITY ENGINEER

RECORD DRAWING
(NO WARRANTY AS TO ACCURACY)
DATE ACCEPTED _____
PROJECT ENGINEER

REVISIONS			
NO.	DESCRIPTION	BY	DATE

CITY OF LAFAYETTE

PLEASANT HILL ROAD MULTI-PURPOSE PATH IMPROVEMENTS

PLAN AND PROFILE STA 14+25 TO STA 26+00

DESIGNED: MA/JDV	PROJECT NO.: 014-9654	SCALE:	H 1"=20' V 1"=2'
DRAWN: JJH	ROLL FRAME		
CHECKED: MA	ABI NO: 2307	SHEET	4 OF 38
DATE: JULY 19, 2005	DWG: 2307-PL2		

Comment Letter LAF
LAF-23

CURVE DATA NEW C&G			
NO	DESCRIPTION	NO	DESCRIPTION
⑦	R = 1027.00' L = 153.29'(T) Δ = 08°33'07"(T)	⑨	R = 20.00' L = 31.44' Δ = 90°03'22"
⑧	R = 1027.00' L = 140.94' Δ = 07°51'46"	⑩	R = 20.00' L = 31.40' Δ = 89°56'38"

PROPOSED PLANTING AREA SEE LANDSCAPE PLANS
SEE NOTE 2
REMOVE EX AC DWY & CONSTRUCT NEW AC DWY PER DETAILS ON SHEET 18 (TYP)
REMOVE EX INLET & SD PIPE
DWY CL 22+75.44
CONSTRUCT 10' AC PATHWAY (TYP)
REMOVE EX CURB & GUTTER (TYP)
STA 20+00
STA 26+00
SEE SHEET 4
MATCH LINE
SEE SHEET 6
CONSTRUCT PCC CURB PER DETAIL B/8
0.17' AC OVERLAY W/FABRIC
CB #6, TYPE A INLET
22+50.98, 37.66' LT
TC 252.86, FL 247.59
CONSTRUCT NEW CURB & GUTTER (TYP)
END AC PATH BEG PCC SW 23+37.94 38.00' RT PC 252.51-RET
SDMH #4, TYPE II
23+41.36, 41.21' RT
RIM 251.4±, EX INV 244.34±
INV 12" IN 248.30
INV 15" IN 247.80
INV 18" IN 245.5±
CONSTRUCT PCC CURB PER DETAIL B/8
25'
REMOVE EX CURB & GUTTER (TYP)
REMOVE 20 LF OF C&G AND PLUG WITH AC. CONSTRUCT NEW CURB
RELOCATE MAILBOX ON NEW POST
SEE NOTE 2
CONSTRUCT NEW CURB & GUTTER (TYP)
CB #7, TYPE A INLET
23+33.95, 38.00' RT
TC 252.53, FL 248.0
CR 5, SEE NOTE 1
CR 4, SEE NOTE 1
END PCC SW
BEGIN AC PATH
24+14.35
38.00' RT
TC 251.99-RET
SEE NOTE 2
W=40'
CONSTRUCT PCC CURB RAMPS, CASE A
AMENO DRIVE
15"X7" HDPEP
12"X13" HDPEP
R=25.0'
R=15.0'
REMOVE EX INLET & SD PIPE. PLUG EX PIPE AT THE MH PER DETAIL B/8 (RIGHT SIDE ONLY)
CONC. BLOCK WALL
REMOVE EX INLET & SD PIPE
EXTEND 18" CLASS V RCP TO THE NEW MH
CB #8, TYPE 2K W/SO & COVER PLATE
23+34.94, 54' RT
COVER 252.50, SO 252.0
12" INV OUT 248.50
BEGIN PCC SW
23+94.32, 57.98' RT
TC 251.34-RET
DWY CL 24+72.05
1009
SEE NOTE 2
PROPOSED PLANTING AREA SEE LANDSCAPE PLANS
CONSTRUCT 10' AC PATHWAY (TYP)
CONSTRUCT AC DITCH PER DETAIL 5/9
END PCC SW
23+57.94, 58.02' RT
TC 251.60-RET
END R&R C&G
23+57.94, 63.49' RT
TC 251.53± (MATCH EX)
12" X 24' HDPEP
CONNECT TO EX CB+
INV 247.3
BEGIN R&R C&G
23+94.32, 66.51' RT
TC 251.22± (MATCH EX)
CB #18, TYPE 2K W/GALV STEEL GRATE, SEE NOTE 4
24+15.0±, 61.0'± RT
TC 250.00/INV 248.00
CONSTRUCT AC DITCH PER DETAIL 5/9

PLEASANT HILL ROAD

20+00 21+00 22+00 23+00 24+00 25+00 26+00

260 255 250 245

SEE SHEET 4 STA 20+00
MATCH LINE
PROPOSED TC-RT
EX GRADE AT PROPOSED LIP OF GUTTER=RT
=0.34%
=0.60%
=0.55%
PROPOSED TC-LT
EX GRADE AT PROPOSED LIP OF GUTTER=LT
20+80.00-52.62' LT GB
TC 253.91
-IN INTERSECTION-
CR 23+57.94-38.00' RT
TC 252.51
23+81.77-38' RT-BVC
TC 252.25
24+14.33-38.00' RT CR
TC 251.99
220' (T) VC
e=0.80'
24+91.77-38' RT-EVC(251.59)
TC 250.79
=0.83%
23+80.00-37.67' LT GB
TC 252.15
24+22.40-37.67' LT-BVC
TC 251.79
25+02.40
37.67' LT-EVC(251.43)
TC 250.55
25+82.40
37.67' LT-EVC
TC 248.15
160' VC, e=0.58'
STA 26+00
MATCH LINE SEE SHEET 6

NOTES

1. FOR CURB RETURN (CR) ELEVATION DATA, SEE SHEET 17.
2. FOR SIGN RELOCATION, REMOVAL OR INSTALLATION SEE SIGNING AND STRIPING PLAN.
3. PROPOSED DRIVEWAY DETAILS, ELEVATIONS AND CONFORMS ARE SHOWN ON SHEET 18.
4. REMOVE EX VEGETATION AROUND CB #18 AND GRADE AREA TO DRAIN INTO INLET.

UTILITY LEGEND

1. RAISE SDMH TO GRADE
2. RAISE SSMH TO GRADE (BY CCCSD)
3. RAISE WATER VALVE TO GRADE (BY EBMUD)
4. RAISE TELEPHONE MH/VALVE TO GRADE (BY SBC)
5. RAISE TRAFFIC SIGNAL BOX TO GRADE
6. RAISE WATER METER TO GRADE
7. RAISE FIRE HYDRANT TO GRADE (BY EBMUD)
8. RAISE PG&E VAULT TO GRADE (PG&E)
9. RAISE ELEC BOX TO GRADE

CONTRACTOR TO VERIFY EXISTING UTILITY LOCATIONS PRIOR TO ANY EXCAVATION CALL USA AT (800) 227-2600

AZARI ENGINEERING, INC.
4807 CLAYTON ROAD, SUITE 200
CONCORD, CA 94521
TEL: (925) 676-3700
FAX: (925) 676-4800

SUBMITTED JULY 15, 2005
PROJECT ENGINEER

REGISTERED PROFESSIONAL ENGINEER MIRSHAD AZARI No. C 41731 Exp. 09-31-06 CIVIL STATE OF CALIFORNIA

APPROVED _____ 2005
CITY ENGINEER
RECORD DRAWING
(NO WARRANTY AS TO ACCURACY)
DATE ACCEPTED _____
PROJECT ENGINEER

REVISIONS NO.	DESCRIPTION	BY	DATE

CITY OF LAFAYETTE

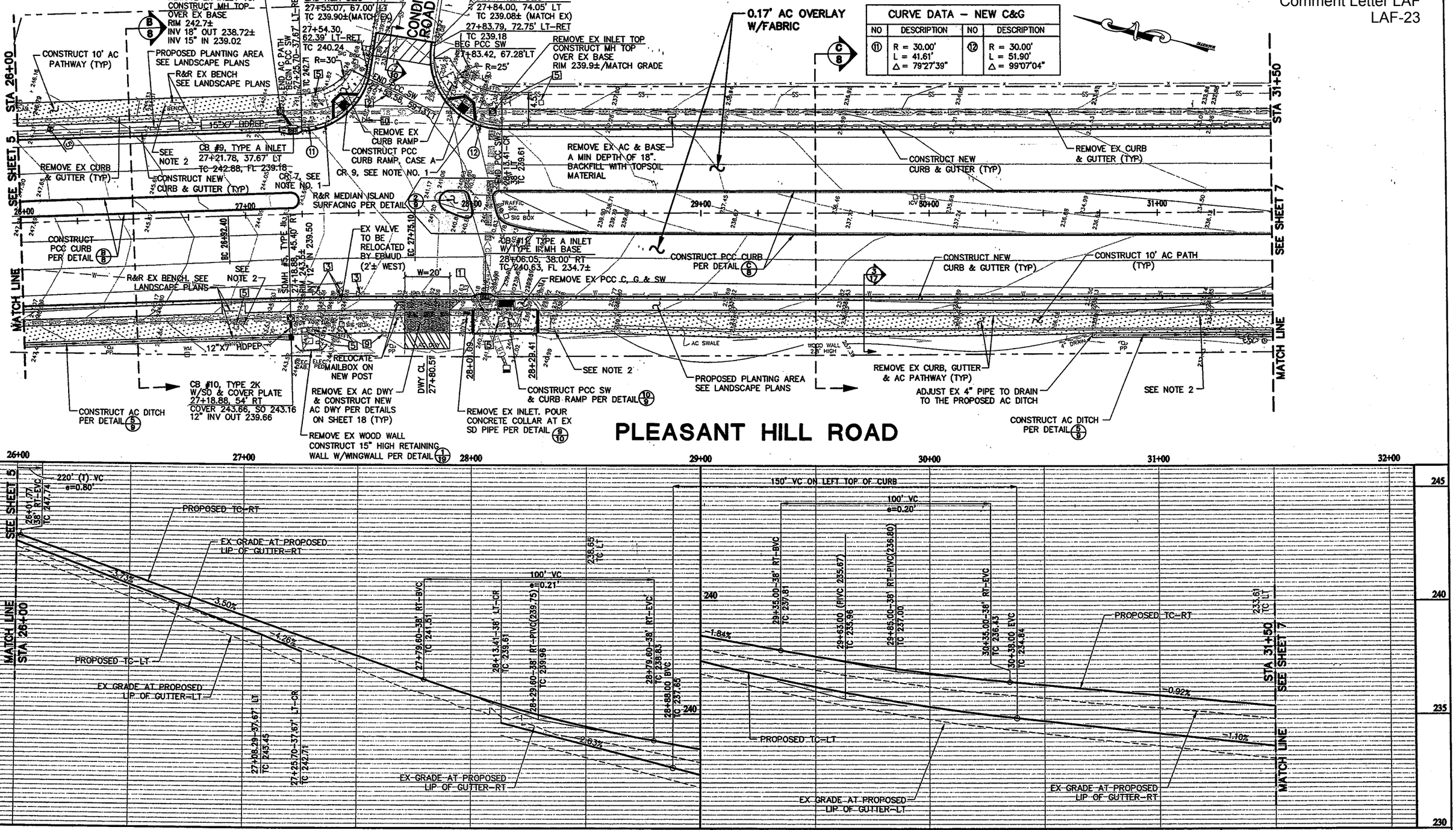
PLEASANT HILL ROAD MULTI-PURPOSE PATH IMPROVEMENTS

PLAN AND PROFILE STA 20+00 TO STA 26+00

DESIGNED: MA/JDV	PROJECT NO.: 014-9654	SCALE:	H 1"=20' V 1"=2'
DRAWN: JJH	ROLL FRAME		
CHECKED: MA	AEI NO: 2307	SHEET	5 OF 38
DATE: JULY 19, 2005	DWG: 2307-PL3		

CURVE DATA – NEW C&G			
NO	DESCRIPTION	NO	DESCRIPTION
⑪	R = 30.00' L = 41.61' Δ = 79°27'39"	⑫	R = 30.00' L = 51.90' Δ = 99°07'04"

PLEASANT HILL ROAD



NOTES

1. FOR CURB RETURN (CR) ELEVATION DATA, SEE SHEET 17.
2. FOR SIGN RELOCATION, REMOVAL OR INSTALLATION SEE SIGNING AND AND STRIPING PLAN.
3. PROPOSED DRIVEWAY DETAILS, ELEVATIONS AND CONFORMS ARE SHOWN ON SHEET 18.

UTILITY LEGEND

1. RAISE SDMH TO GRADE
2. RAISE SSMH TO GRADE (BY CCCSD)
3. RAISE WATER VALVE TO GRADE (BY EBMUD)
4. RAISE TELEPHONE MH/VALVE TO GRADE (BY SBC)
5. RAISE TRAFFIC SIGNAL BOX TO GRADE
6. RAISE WATER METER TO GRADE
7. RAISE FIRE HYDRANT TO GRADE (BY EBMUD)
8. RAISE PG&E VAULT TO GRADE (PG&E)
9. RAISE ELEC BOX TO GRADE
10. RAISE GAS VALVE TO GRADE (BY PG&E)

CONTRACTOR TO VERIFY EXISTING UTILITY LOCATIONS PRIOR TO ANY EXCAVATION CALL USA AT (800) 227-2600

AZARI ENGINEERING, INC.
4807 CLAYTON ROAD, SUITE 200
CONCORD, CA 94521
TEL: (925) 676-3700
FAX: (925) 676-4800

REGISTERED PROFESSIONAL ENGINEER MORTEZA AZARI No. C 41731 Exp. 03-31-06 CIVIL STATE OF CALIFORNIA

SUBMITTED JULY 19, 2005
PROJECT ENGINEER

APPROVED _____ 2005
CITY ENGINEER

RECORD DRAWING
(NO WARRANTY AS TO ACCURACY)
DATE ACCEPTED _____
PROJECT ENGINEER

REVISIONS			
NO.	DESCRIPTION	BY	DATE

CITY OF LAFAYETTE

PLEASANT HILL ROAD MULTI-PURPOSE PATH IMPROVEMENTS

PLAN AND PROFILE STA 26+00 TO STA 31+50

DESIGNED: MA/JDV	PROJECT NO.: 014–9654	SCALE:	H 1"=20' V 1"=2'
DRAWN: JJH	ROLL: FRAME		
CHECKED: MA	AEI NO: 2307	SHEET	6 OF 38
DATE: JULY 19, 2005	DWG: 2307–PL4		

Comment Letter LAF
LAF-23

CONSTRUCT 10 LF AC DITCH PER DETAIL 5/9

REMOVE EX INLET TOP
CONSTRUCT TYPE C INLET
W/8" HIGH SO OVER EX BASE
RIM 232.75±
SO 231.58

0.17' AC OVERLAY W/FABRIC

CONSTRUCT 10 LF AC DITCH PER DETAIL 5/9

REMOVE EX INLET TOP
CONSTRUCT TYPE C INLET
W/8" HIGH SO OVER EX BASE
RIM 230.08±
SO 228.91

EX LANDSCAPING AND IRRIGATION TO REMAIN, TYP.

END R&R C&G
36+89.79, 64.64' LT
TC 226.55±(MATCH EX)

CR 36+67.29, 38' LT
TC 227.90

CURVE DATA
NEW C&G

NO	DESCRIPTION
12	R = 25.00' L = 39.27' Δ = 89°41'24"
13	
14	R = 20.00' L = 31.42' Δ = 90°00'00"

CR 10
SEE NOTE NO. 1

CB #19, TYPE A INLET
32+40.56, 38' LT
TC 232.61
INV 18" THRU 227.91±

REMOVE EX CURB & GUTTER (TYP)

CONSTRUCT PCC CURB PER DETAIL C/8

CONSTRUCT NEW CURB & GUTTER (TYP)

CB #20, TYPE A INLET WITH TYPE II MH BASE
34+82.14, 38' LT
TC 229.94
INV 36" THRU 224.72±

PROPOSED, PLANTING AREA SEE LANDSCAPE PLANS

LIMIT OF WORK

SEE SHEET 6
STA 31+50

MATCH LINE

REMOVE EX INLET TOP
CONSTRUCT MH TOP OVER EX BASE
RIM 234.4±
INV 12" IN 230.5±
INV 18" OUT 229.56±

CB #12, TYPE A INLET
32+40.73, 38.00' RT
TC 234.52, FL 229.45±

REMOVE EX CURB, GUTTER & AC PATH (TYP)

REMOVE EX AC DWY & CONSTRUCT NEW AC DWY PER DETAILS ON SHEET 18 (TYP)

W=57'

CB #16, TYPE A INLET WITH TYPE II MH BASE
34+82.70, 38.00' RT
TC 231.63, FL 225.0±

12"X19' HDPEP

CB #17, TYPE A INLET
35+79.58, 38.00' RT
TC 230.01
INV 12" OUT 226.14

END AC PATH
BEGIN PCC SW
36+70.38, 38.00' RT
TC 228.38-RET

12"X6' HDPEP

CONSTRUCT PCC CURB RAMP, CASE A

CR 6, SEE NOTE NO. 1

REMOVE EX CURB RAMP

12"X13' HDPEP

REMOVE EX DI & SD PIPE

CB #13, TYPE 2K W/SO & COVER PLATE
32+50, 54' RT
COVER 234.47, SO 233.97
12" INV OUT 230.97

CONSTRUCT AC DITCH PER DETAIL 5/9

CONSTRUCT 10' AC PATHWAY (TYP)

CB #14, TYPE 2K W/SO & COVER PLATE
33+62.27, 54' RT
COVER233.43, SO 232.93
12" INV OUT 229.93

971-975

RELOCATE MAILBOX ON NEW POST

DWY CL 33+96.83

CONSTRUCT AC DITCH PER DETAIL 5/9

965-973

12"X104' RCP CLASS V S=0.0146

CB #15, TYPE 2K W/SO & COVER PLATE
34+65.99, 54' RT
COVER 231.91, SO 231.41
12" INV OUT 228.41

REMOVE EX INLET TOP
CONSTRUCT NEW MH TOP OVER EX BASE
RIM 231.5±
INV 12" IN 228.0
INV 18" OUT 225.08

WOOD WALL 2.0' HIGH

WALL 1.85' HIGH

2.15' HIGH

35+51.37, 52.56' RT
BEGIN SUBDRAIN

SDMH #6, TYPE I
35+79.58, 44' RT
RIM 229.9±
INV 12" IN 226.02
INV 13" IN 226.32
INV 18" OUT 226.02

CONCRETE WALL 1.85' HIGH

REMOVE EX INLET

CONSTRUCT SUBDRAIN 6"X113' PVC PERF PIPE BEHIND THE EX CONC WALL PER DETAIL A/9

36+64.43, 52.45' RT
BEGIN AC DITCH
END SUBDRAIN

END PCC SW
36+90.38, 58.00' RT-RET
TC 227.77

END R&R C&G
36+90.38, 72.11' RT
TC 228.01± (MATCH EX)

PCC VALLEY GUTTER

RELIEZ STATION ROAD

PLEASANT HILL ROAD

32+00 33+00 34+00 35+00 36+00 37+00

240
235
230
225

SEE SHEET 6
STA 31+50
233.61 TC LT

233.06 TC LT
232.50 TC LT
231.95 TC LT
231.40 TC LT
230.85 TC LT
230.30 TC LT
229.74 TC LT
229.19 TC LT
228.64 TC LT
228.09 TC LT

PROPOSED TC-RT

33+64.96-38' RT GB
TC 233.38

34+96.84-38' RT GB
TC 231.42

0.92%
1.48%
1.10%
1.70%
2.54%

MATCH LINE

EX GRADE AT PROPOSED LIP OF GUTTER=RT

PROPOSED TC-LT

EX GRADE AT PROPOSED LIP OF GUTTER=LT

36+60.00-38' RT GB
TC 228.64

CR 36+70.38-38.00' RT
TC 228.38
36+67.29-38' LT-CR
TC 227.90

NOTES

1. FOR CURB RETURN (CR) ELEVATION DATA, SEE SHEET 17.
2. FOR SIGN RELOCATION, REMOVAL OR INSTALLATION SEE SIGNING AND STRIPING PLAN.
3. PROPOSED DRIVEWAY DETAILS, ELEVATIONS AND CONFORMS ARE SHOWN ON SHEET 18.

UTILITY LEGEND

1. RAISE SDMH TO GRADE
2. RAISE SSMH TO GRADE (BY CCCSD)
3. RAISE WATER VALVE TO GRADE (BY EBMUD)
4. RAISE TELEPHONE MH/VALVE TO GRADE (BY SBC)
5. RAISE TRAFFIC SIGNAL BOX TO GRADE
6. RAISE WATER METER TO GRADE
7. RAISE FIRE HYDRANT TO GRADE (BY EBMUD)
8. RAISE PG&E VAULT TO GRADE (PG&E)
9. RAISE ELEC BOX TO GRADE

CONTRACTOR TO VERIFY EXISTING UTILITY LOCATIONS PRIOR TO ANY EXCAVATION CALL USA AT (800) 227-2600

AZARI ENGINEERING, INC.
4807 CLAYTON ROAD, SUITE 200
CONCORD, CA 94521
TEL: (925) 676-3700
FAX: (925) 676-4800

REGISTERED PROFESSIONAL ENGINEER — RAYMOND AZARI — No. C 41781 Exp. 03-31-06 — CIVIL — STATE OF CALIFORNIA

SUBMITTED JULY 19, 2005
PROJECT ENGINEER

APPROVED _____ 2005
CITY ENGINEER
RECORD DRAWING
(NO WARRANTY AS TO ACCURACY)
DATE ACCEPTED _____
PROJECT ENGINEER

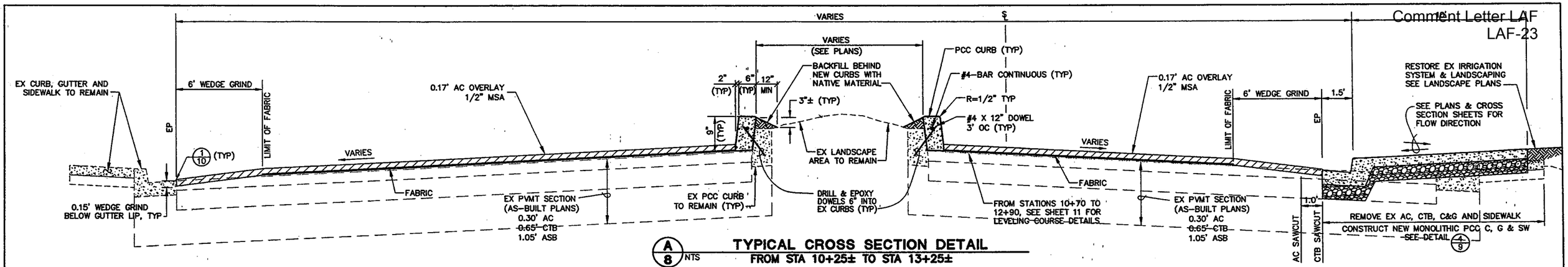
REVISIONS NO.	DESCRIPTION	BY	DATE

CITY OF LAFAYETTE

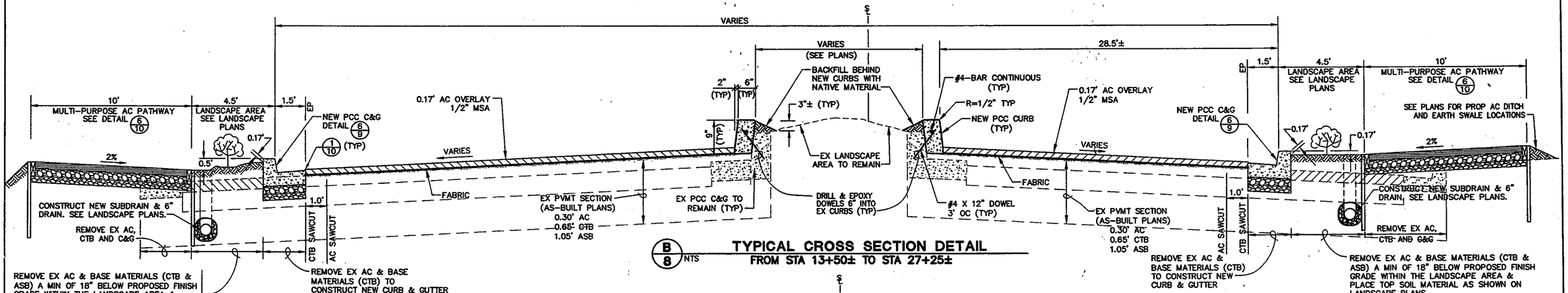
PLEASANT HILL ROAD
MULTI-PURPOSE PATH IMPROVEMENTS

PLAN AND PROFILE
STA 31+50 TO STA 37+00

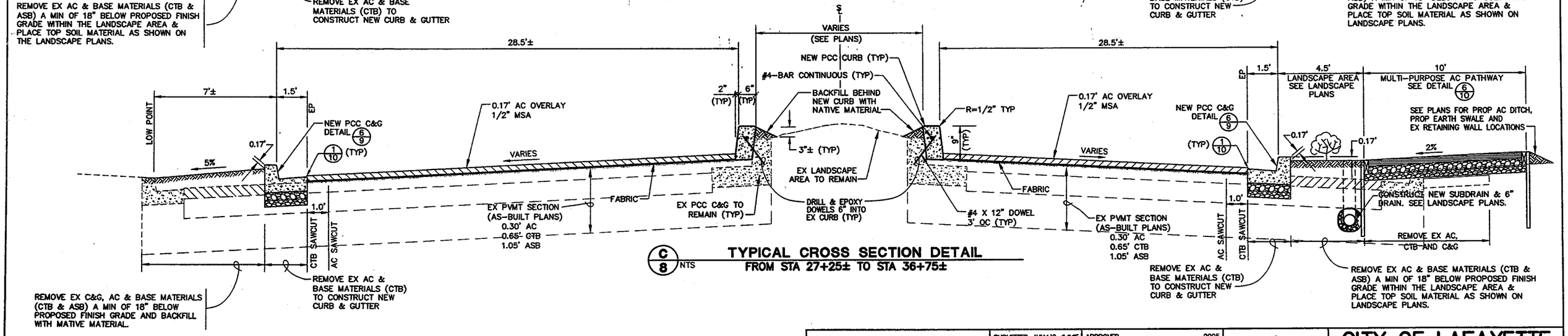
DESIGNED: MA/JDV	PROJECT NO.: 014-9654	SCALE:	H 1"=20' V 1"=2'
DRAWN: JJH	ROLL FRAME		
CHECKED: MA	AEI NO: 2307	SHEET	7 OF 38
DATE: JULY 19, 2005	DWG: 2307-PL5		



A/8 NTS — TYPICAL CROSS SECTION DETAIL
FROM STA 10+25± TO STA 13+25±



B/8 NTS — TYPICAL CROSS SECTION DETAIL
FROM STA 13+50± TO STA 27+25±



C/8 NTS — TYPICAL CROSS SECTION DETAIL
FROM STA 27+25± TO STA 36+75±

CONTRACTOR TO VERIFY EXISTING UTILITY LOCATIONS PRIOR TO ANY EXCAVATION CALL USA AT (800) 227-2600

AZARI ENGINEERING, INC.
4807 CLAYTON ROAD, SUITE 200
CONCORD, CA 94521
TEL: (925) 676-3700
FAX: (925) 676-4800

SUBMITTED JULY 19, 2005
PROJECT ENGINEER

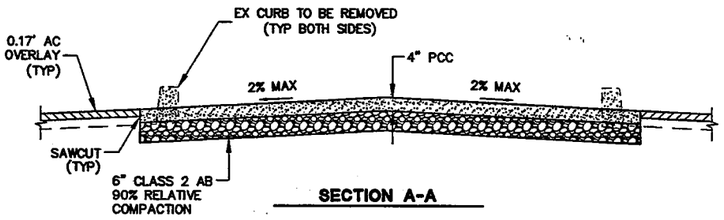
REGISTERED PROFESSIONAL ENGINEER — MAHMOUD AZARI — No. C 41781 — Exp. 03-31-06 — CIVIL — STATE OF CALIFORNIA

APPROVED _____ 2005
CITY ENGINEER
RECORD DRAWING
(NO WARRANTY AS TO ACCURACY)
DATE ACCEPTED _____
PROJECT ENGINEER

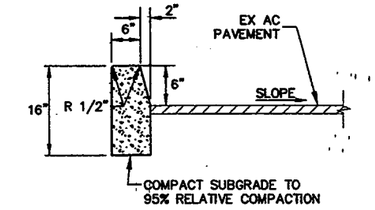
CITY OF LAFAYETTE
PLEASANT HILL ROAD MULTI-PURPOSE PATH IMPROVEMENTS
TYPICAL CROSS SECTIONS

REVISIONS			
NO.	DESCRIPTION	BY	DATE

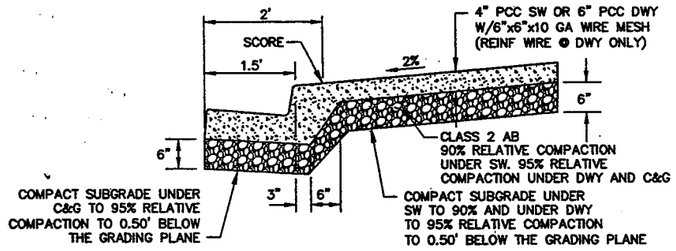
DESIGNED: MA/JDV	PROJECT NO.: 014-9654	SCALE: NO SCALE	
DRAWN: JJH	ROLL FRAME		
CHECKED: MA	AEI NO: 2307	SHEET 8 OF 38	
DATE: JULY 19, 2005	DWG: 2307-XS		



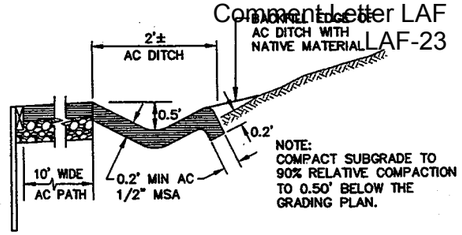
SECTION A-A



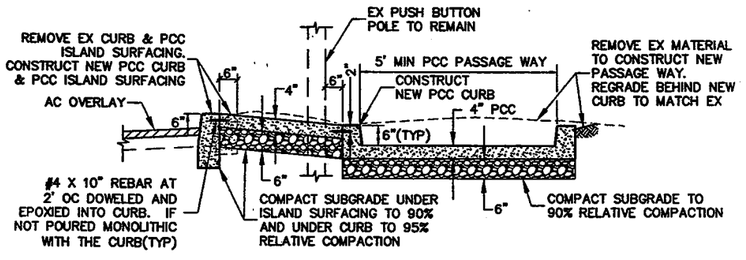
3/9 NTS **VERTICAL CURB DETAIL**



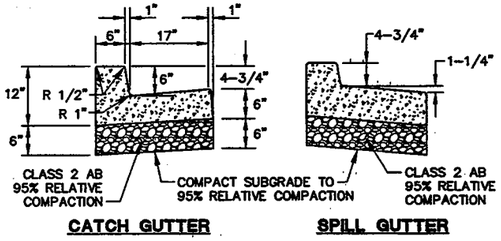
4/9 NTS **MONOLITHIC CURB, GUTTER AND SIDEWALK**



5/9 NTS **AC DITCH**

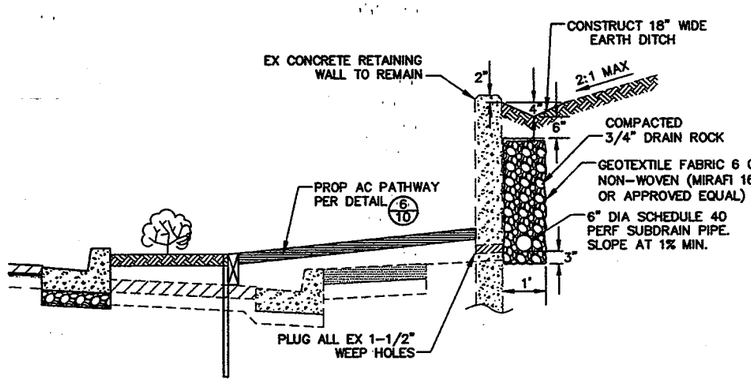


SECTION B-B

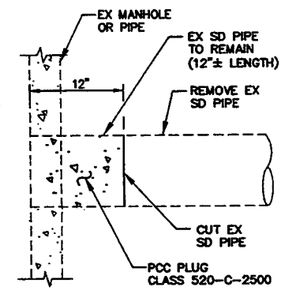


CATCH GUTTER SPILL GUTTER

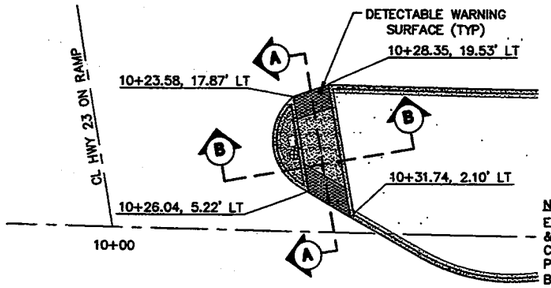
6/9 NTS **CURB AND GUTTER DETAIL**



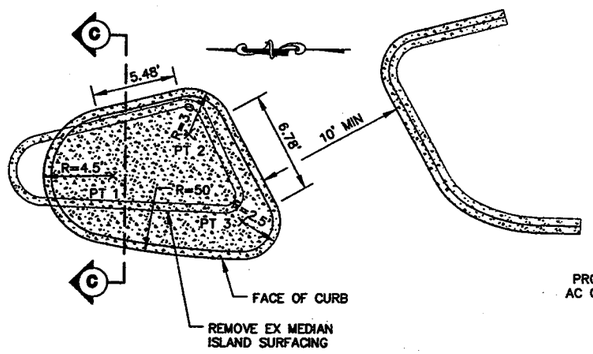
7/9 NTS **PATHWAY AT EX CONC WALL/SUBDRAIN DETAIL**



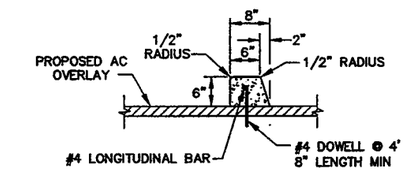
8/9 NTS **PLUG EX STORM DRAIN**



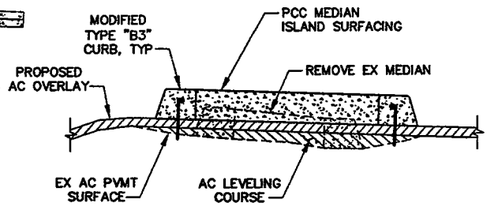
1/9 NTS **MEDIAN PASSAGE WAY AND SURFACING DETAIL**
AT MT DIABLO BLVD AND PLEASANT HILL ROAD INTERSECTION



POINT	STA	OFFSET	DESCRIPTION
1	27+90.41	5.15' LT	CENTER OF RADIUS
2	27+95.89	6.65' LT	CENTER OF RADIUS
3	27+98.04	0.20' LT	CENTER OF RADIUS



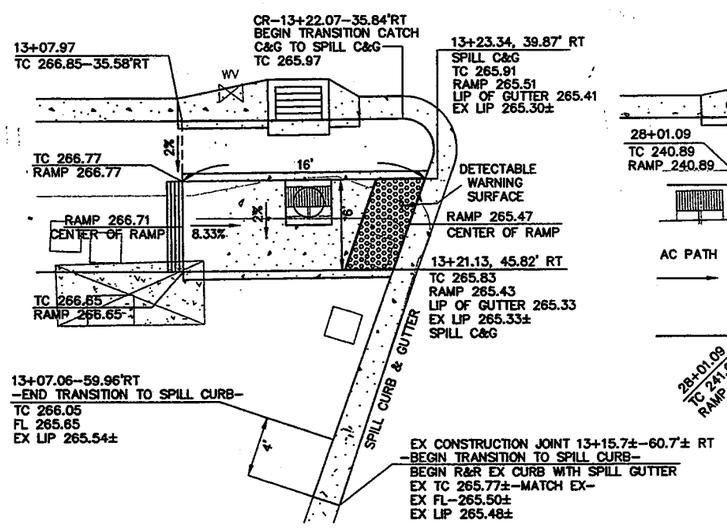
MODIFIED TYPE "B3" CURB



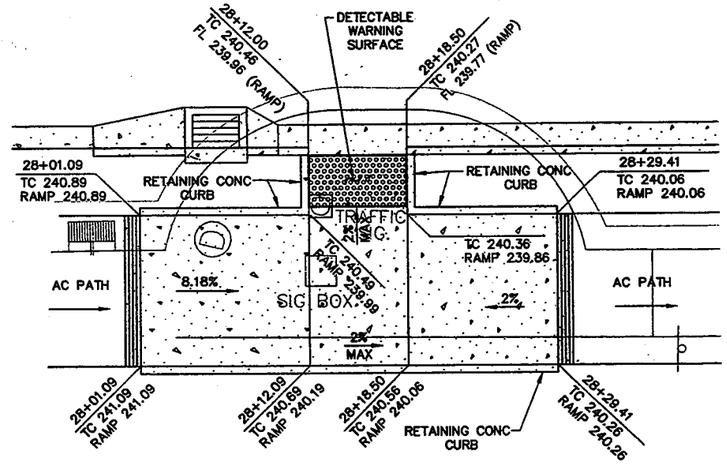
SECTION C-C

CONTRACTOR TO VERIFY EXISTING UTILITY LOCATIONS PRIOR TO ANY EXCAVATION CALL USA AT (800) 227-2600

2/9 NTS **REMOVE & REPLACE PCC MEDIAN ISLAND SUFACING**
AT CONDIT ROAD & PLEASANT HILL ROAD INTERSECTION



9/9 NTS **CURB RAMP AT STA 13+25± RT**



10/9 NTS **CURB RAMP AT STA 28+15± RT**

AZARI
ENGINEERING, INC.
4807 CLAYTON ROAD, SUITE 200
CONCORD, CA 94521
TEL: (925) 676-3700
FAX: (925) 676-4800

SUBMITTED JULY 19, 2005
PROJECT ENGINEER

REGISTERED PROFESSIONAL ENGINEER
RONALD ALAN
No. C 41731
Exp. 09-31-06
CIVIL
STATE OF CALIFORNIA

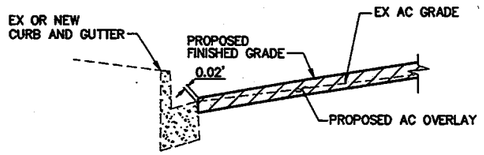
APPROVED _____ 2005
CITY ENGINEER

RECORD DRAWING
(NO WARRANTY AS TO ACCURACY)
DATE ACCEPTED _____
PROJECT ENGINEER

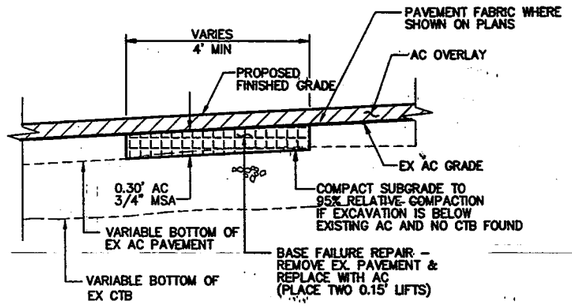
CITY OF LAFAYETTE
PLEASANT HILL ROAD MULTI-PURPOSE PATH IMPROVEMENTS
CONSTRUCTION DETAILS

REVISIONS NO.	DESCRIPTION	BY	DATE

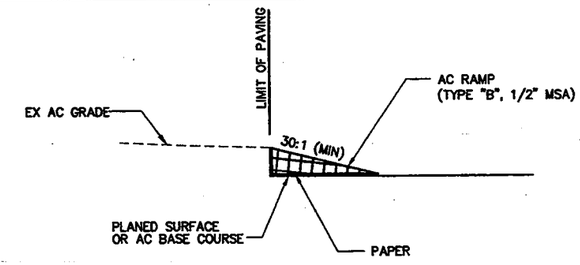
DESIGNED: MA/JDV | PROJECT NO.: 014-9654 | SCALE: NO SCALE
DRAWN: JJH | ROLL | FRAME
CHECKED: MA | AEI NO: 2307
DATE: JULY 19, 2005 | DWG: 2307-CD1



1/10 AC PAVING AT GUTTER LIP
NTS

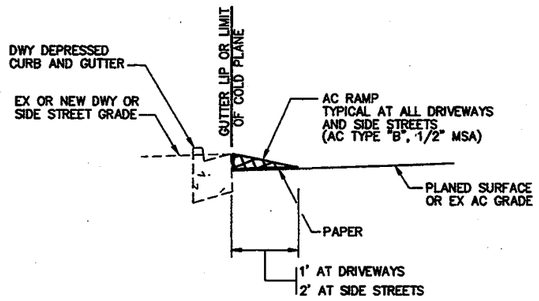


2/10 AC BASE FAILURE REPAIR
NTS

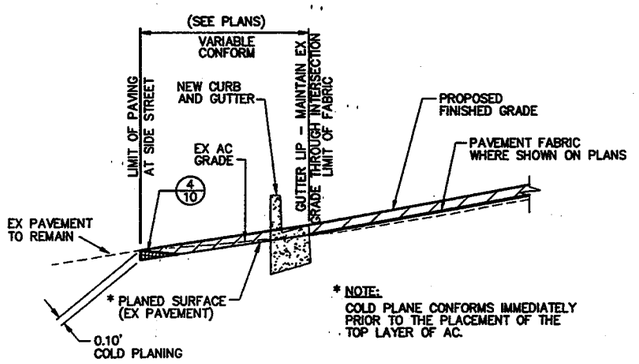


NOTE: CONTRACTOR SHALL ALSO CONSTRUCT TEMPORARY RAMP AT A MINIMUM 30:1 SLOPE LONGTUDINALLY ALONG THE TRAVEL LANE TO PROVIDE A SMOOTH APPROACH/ DEPARTURE TRANSITION FOR TRAFFIC.

3/10 TEMPORARY ASPHALT CONCRETE RAMP
NTS AT AC PAVEMENT TRANSVERSE CONFORMS

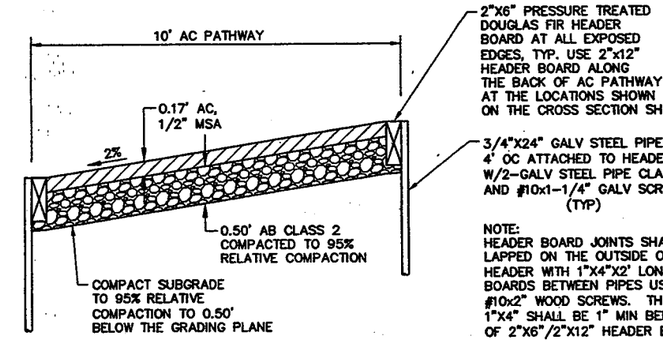


4/10 TEMPORARY ASPHALT CONCRETE RAMP
NTS AT DRIVEWAYS AND SIDE STREET CONFORMS

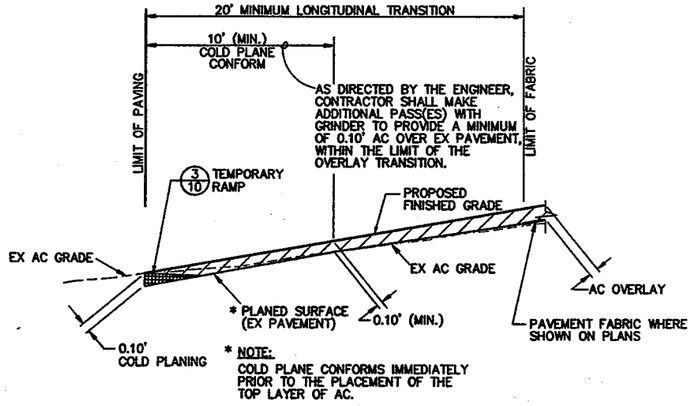


* NOTE:
COLD PLANE CONFORMS IMMEDIATELY PRIOR TO THE PLACEMENT OF THE TOP LAYER OF AC.

5/10 AC OVERLAY TRANSITION
NTS AT SIDE STREET CONFORMS (WITH CURB AND GUTTER)

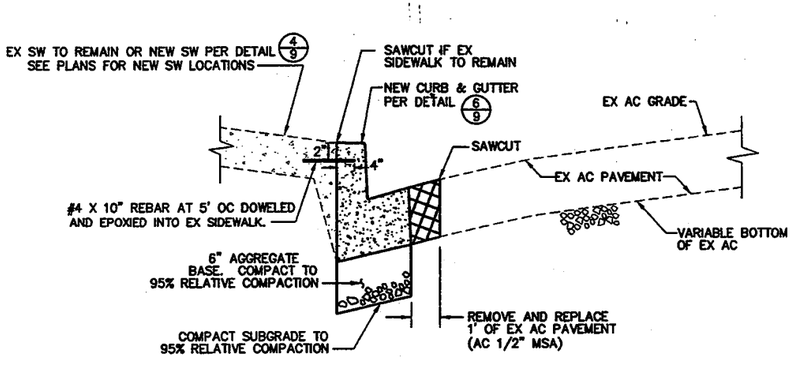


6/10 NEW 10' MULTI-PURPOSE AC PATHWAY
NTS PLEASANT HILL ROAD

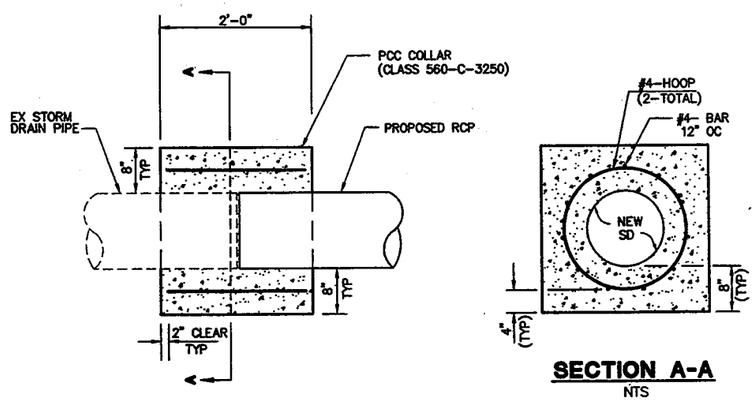


* NOTE:
COLD PLANE CONFORMS IMMEDIATELY PRIOR TO THE PLACEMENT OF THE TOP LAYER OF AC.

7/10 AC OVERLAY TRANSITION
NTS AT TRANSVERSE CONFORMS



8/10 NEW CURB AND GUTTER
NTS AT EXISTING PAVEMENT



SECTION A-A
NTS

9/10 PCC COLLAR
NTS

CONTRACTOR TO VERIFY EXISTING UTILITY LOCATIONS PRIOR TO ANY EXCAVATION CALL USA AT (800) 227-2600

AZARI ENGINEERING, INC.
4807 CLAYTON ROAD, SUITE 200
CONCORD, CA 94521
TEL: (925) 676-3700
FAX: (925) 676-4800

SUBMITTED JULY 19, 2005
PROJECT ENGINEER

REGISTERED PROFESSIONAL ENGINEER ABDRAD AZARI No. C 41731 Exp. 08-31-06 CIVIL STATE OF CALIFORNIA

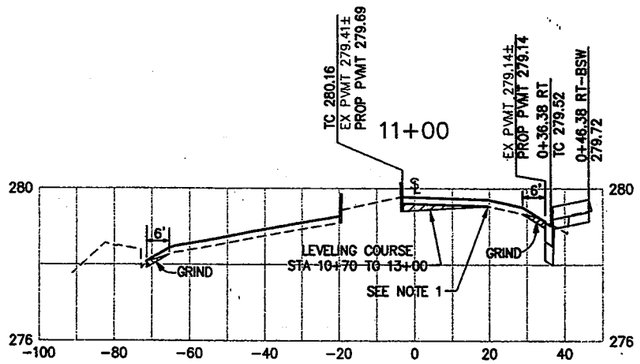
APPROVED _____ 2005
CITY ENGINEER

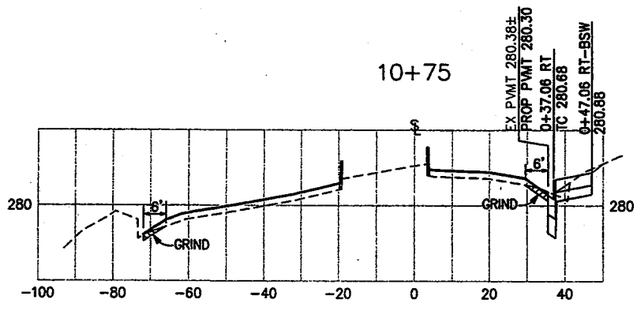
RECORD DRAWING
(NO WARRANTY AS TO ACCURACY)
DATE ACCEPTED _____
PROJECT ENGINEER

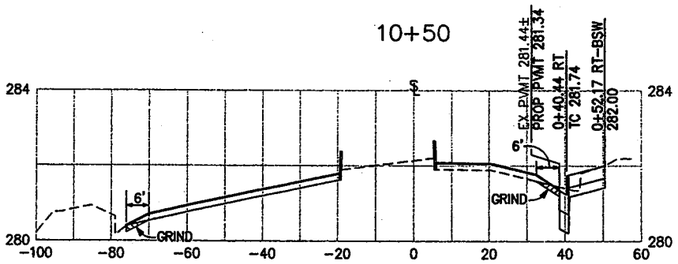
NO.	DESCRIPTION	BY	DATE
REVISIONS			

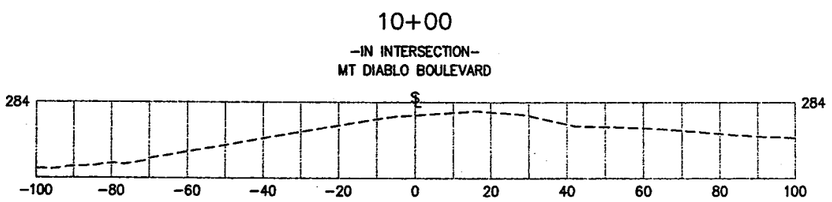
CITY OF LAFAYETTE
PLEASANT HILL ROAD MULTI-PURPOSE PATH IMPROVEMENTS
CONSTRUCTION DETAILS

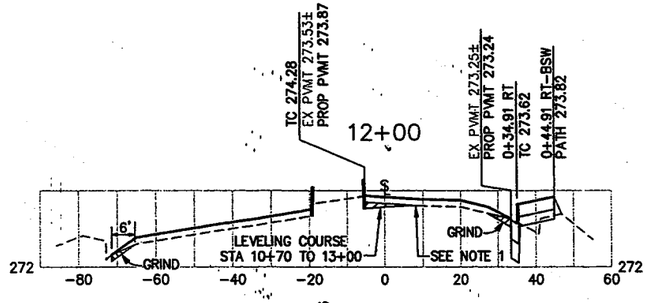
DESIGNED: MA/JDV	PROJECT NO.: 014-9654	SCALE: NO SCALE	
DRAWN: JJH	ROLL FRAME		
CHECKED: MA	AEI NO: 2307	SHEET 10 OF 38	
DATE: JULY 19, 2005	DWG: 2307-CD2		

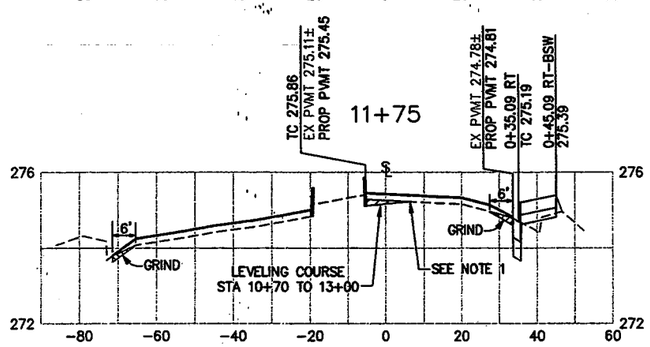


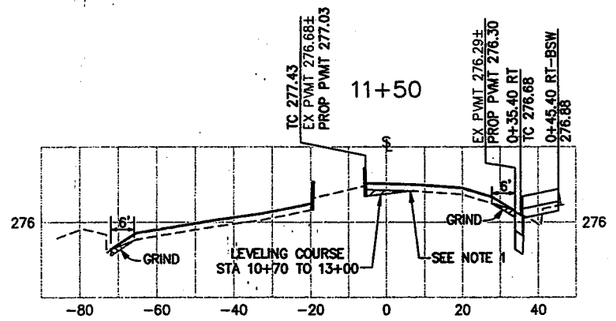


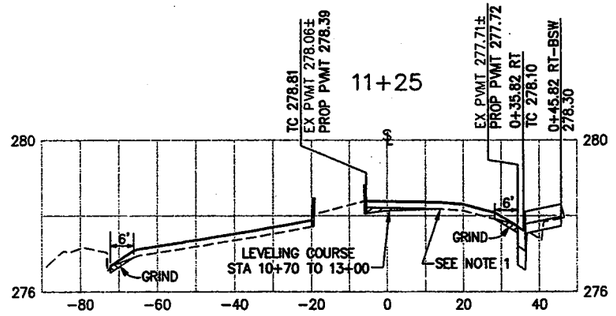


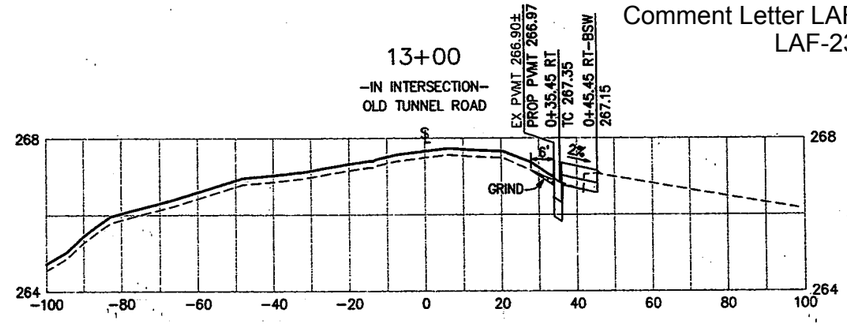


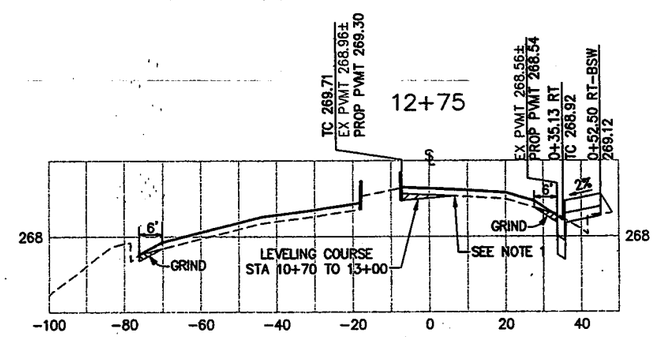


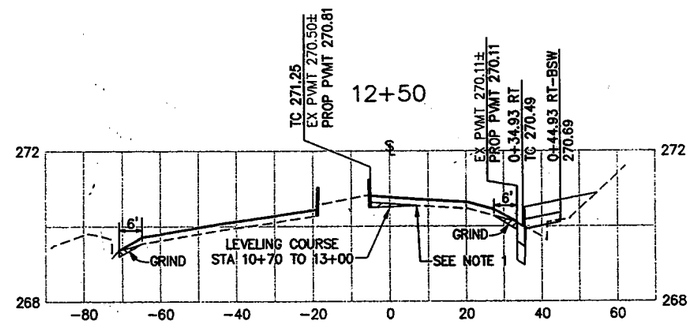


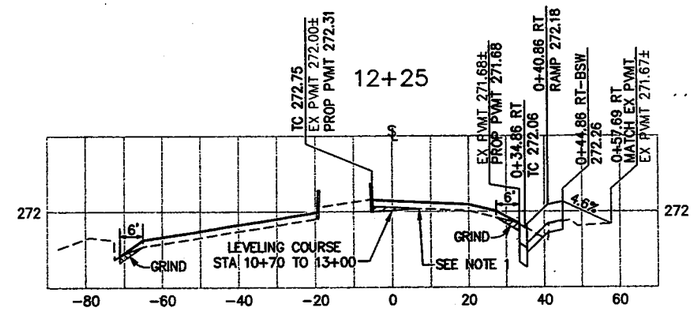












NOTE

1. FEATHER ASPHALT CONCRETE LEVELING COURSE TO MATCH EXISTING SURFACE. PAVEMENT REINFORCEMENT FABRIC SHALL BE PLACED ABOVE THE LEVELING COURSE.

CONTRACTOR TO VERIFY EXISTING UTILITY LOCATIONS PRIOR TO ANY EXCAVATION CALL USA AT (800) 227-2600

AZARI ENGINEERING, INC.
4807 CLAYTON ROAD, SUITE 200
CONCORD, CA 94521
TEL: (925) 676-3700
FAX: (925) 676-4800

SUBMITTED JULY 19, 2005
PROJECT ENGINEER

REGISTERED PROFESSIONAL ENGINEER — MICHAEL LEAR — No. C 41731 Exp. 09-31-06 — CIVIL — STATE OF CALIFORNIA

APPROVED _____ 2005
CITY ENGINEER

RECORD DRAWING
(NO WARRANTY AS TO ACCURACY)
DATE ACCEPTED _____
PROJECT ENGINEER

REVISIONS NO.	DESCRIPTION	BY	DATE

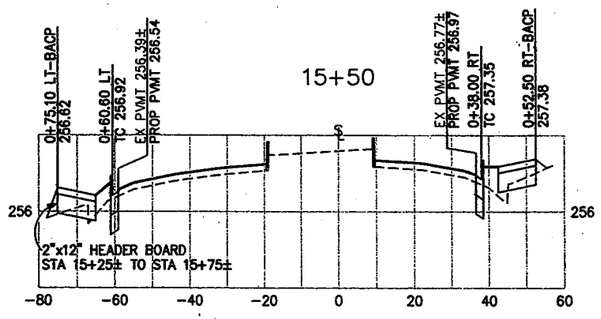
CITY OF LAFAYETTE

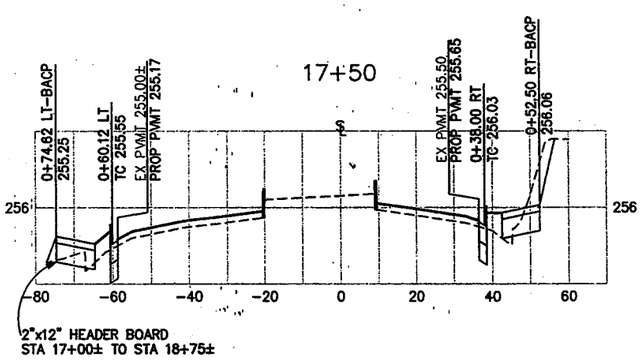
PLEASANT HILL ROAD MULTI-PURPOSE PATH IMPROVEMENTS

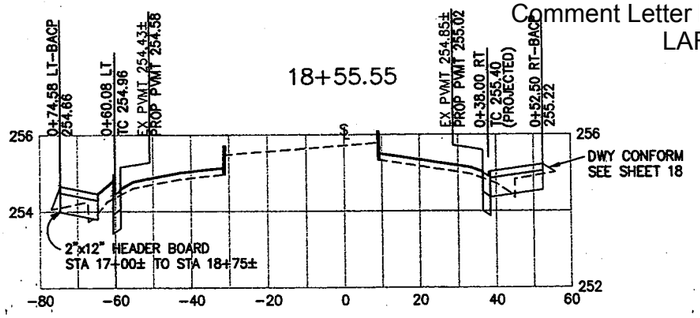
CROSS SECTIONS STA 10+00 TO 13+00

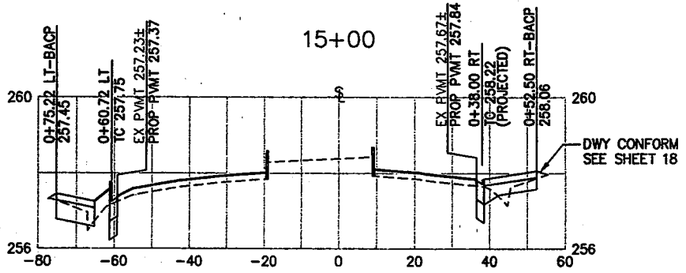
DESIGNED: MA/JDV	PROJECT NO.: 014-9654	SCALE:	H: 1"=20' V: 1"=2'
DRAWN: JJH	ROLL FRAME		
CHECKED: MA	AEI NO: 2307	SHEET	11 OF 38
DATE: JULY 19, 2005	DWG: 2307-XSEC		

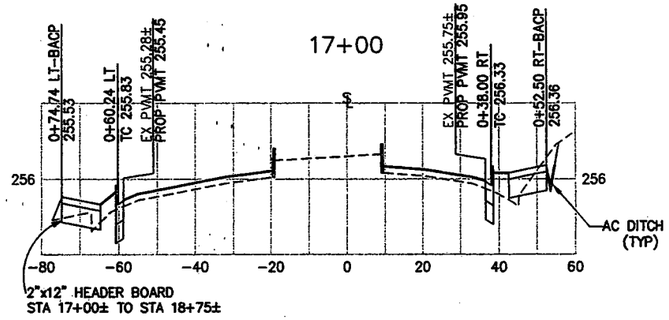
Comment Letter LAF
LAF-23

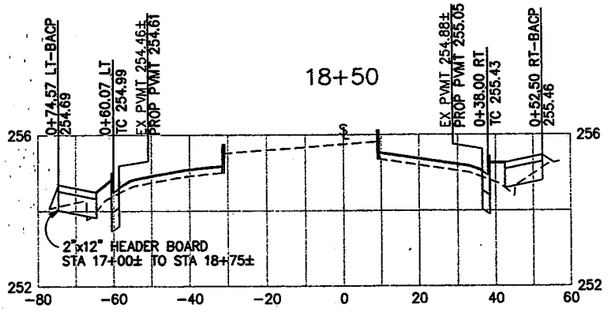


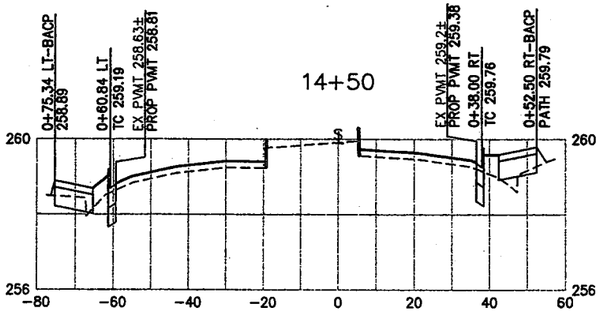


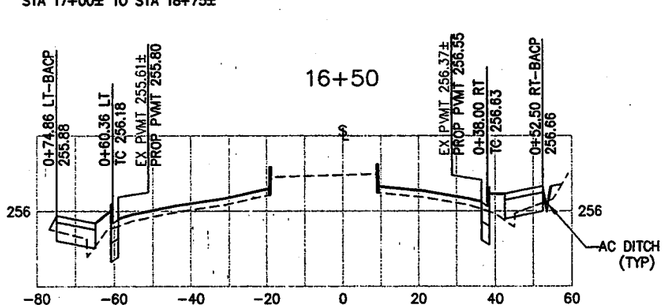


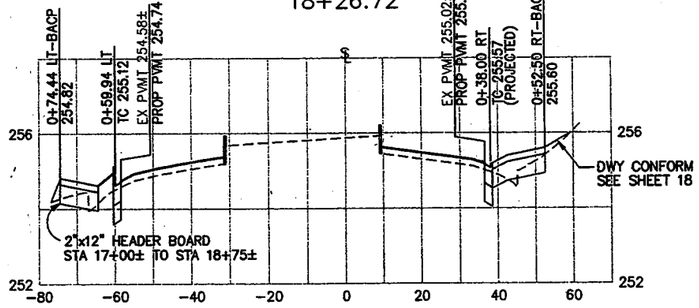


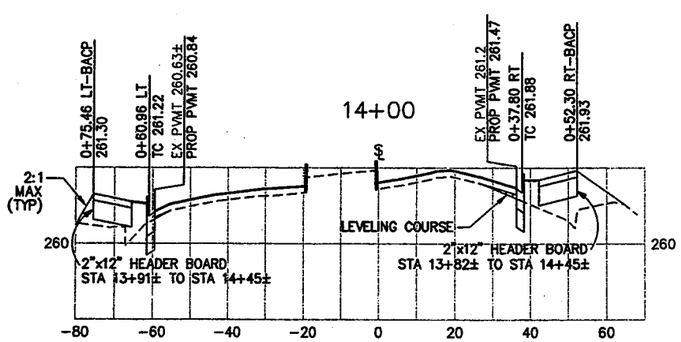


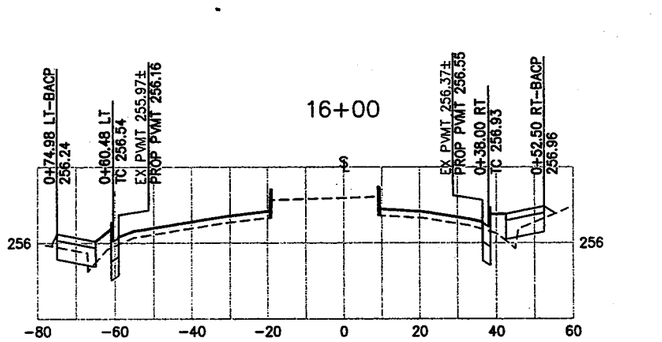


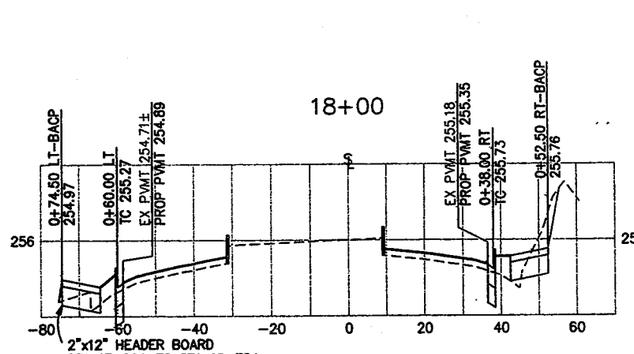












CONTRACTOR TO VERIFY EXISTING UTILITY LOCATIONS PRIOR TO ANY EXCAVATION CALL USA AT (800) 227-2600

AZARI ENGINEERING, INC.
4807 CLAYTON ROAD, SUITE 200
CONCORD, CA 94521
TEL: (925) 676-3700
FAX: (925) 676-4800

SUBMITTED JULY 19, 2005
PROJECT ENGINEER

REGISTERED PROFESSIONAL ENGINEER — EDMUND AZARI — No. C 41731 — Exp. 09-31-06 — CIVIL — STATE OF CALIFORNIA

APPROVED _____ 2005
CITY ENGINEER

RECORD DRAWING
(NO WARRANTY AS TO ACCURACY)
DATE ACCEPTED _____
PROJECT ENGINEER

REVISIONS			
NO.	DESCRIPTION	BY	DATE

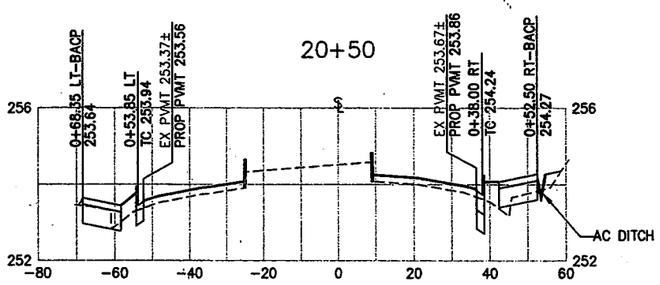
CITY OF LAFAYETTE

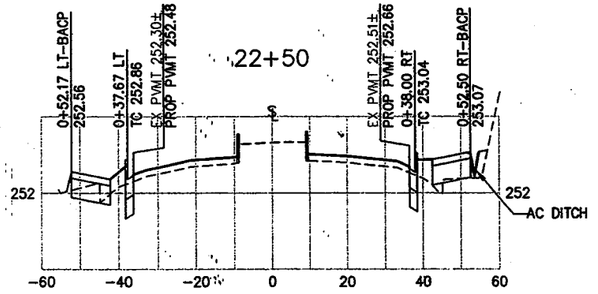
PLEASANT HILL ROAD MULTI-PURPOSE PATH IMPROVEMENTS

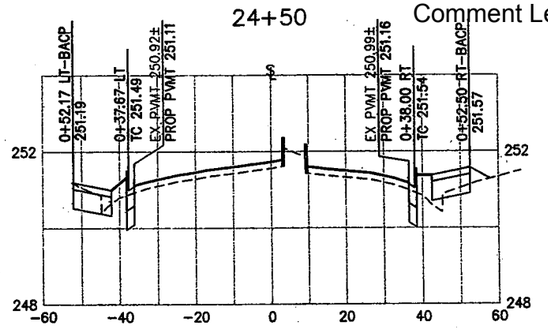
CROSS SECTIONS STA 14+00 TO 18+55.55

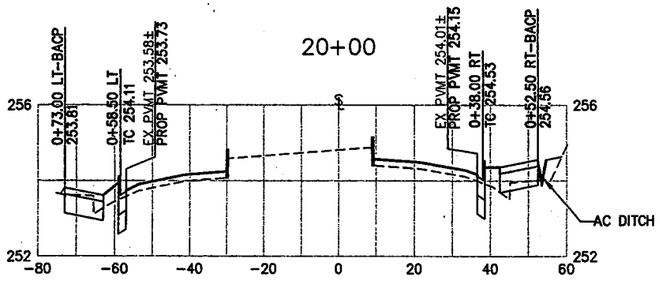
DESIGNED: MA/JDV	PROJECT NO.: 014-9654	SCALE:	H: 1"=20' V: 1"=2'
DRAWN: JJH	ROLL FRAME		
CHECKED: MA	AEI NO: 2307	SHEET	12 OF 38
DATE: JULY 19, 2005	DWG: 2307-XSEC		

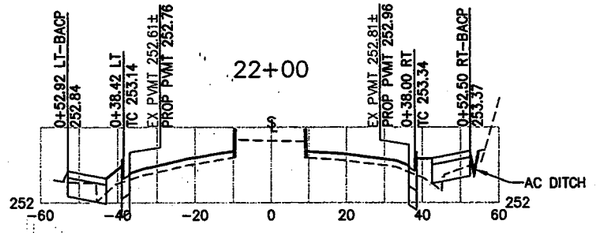
Comment Letter LAF
LAF-23

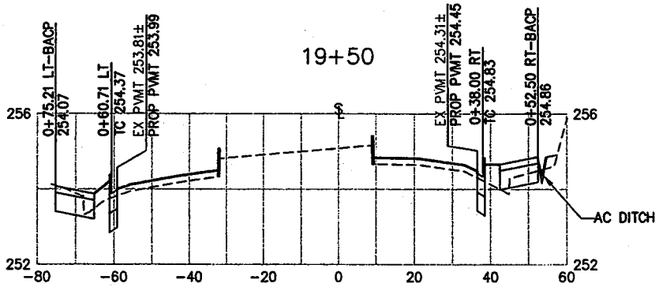


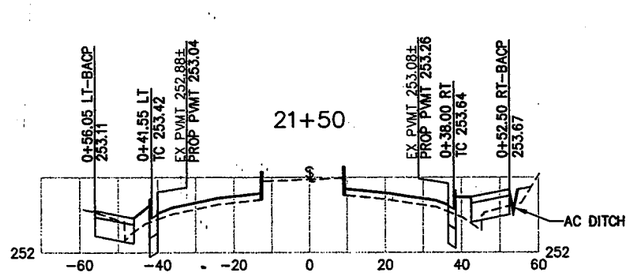


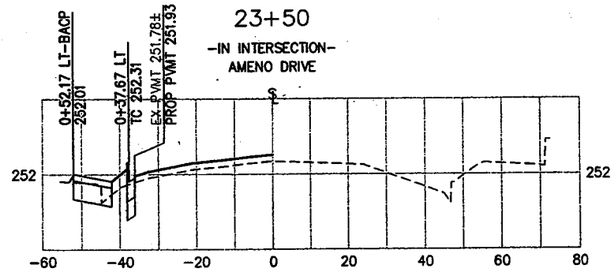


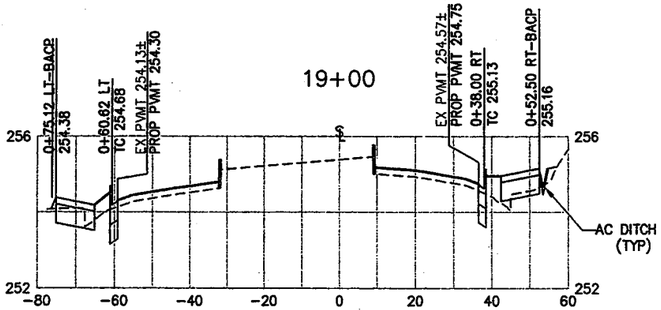


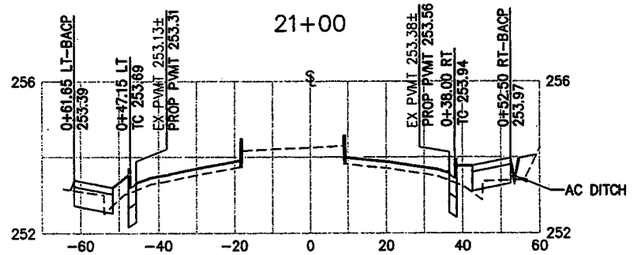


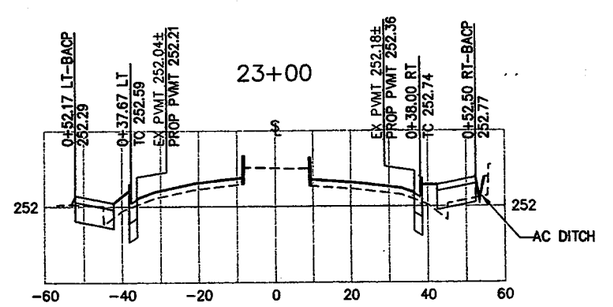












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CONCORD, CA 94521
TEL: (925) 676-3700
FAX: (925) 676-4800

SUBMITTED JULY 19, 2005
PROJECT ENGINEER

REGISTERED PROFESSIONAL ENGINEER MEHRDAD AZARI No. C 41731 Exp. 09-31-06 CIVIL STATE OF CALIFORNIA

APPROVED _____ 2005
CITY ENGINEER

RECORD DRAWING
(NO WARRANTY AS TO ACCURACY)
DATE ACCEPTED _____
PROJECT ENGINEER

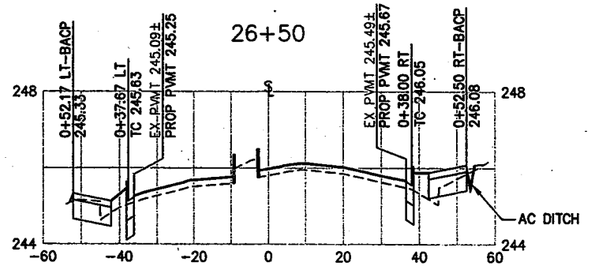
REVISIONS			
NO.	DESCRIPTION	BY	DATE

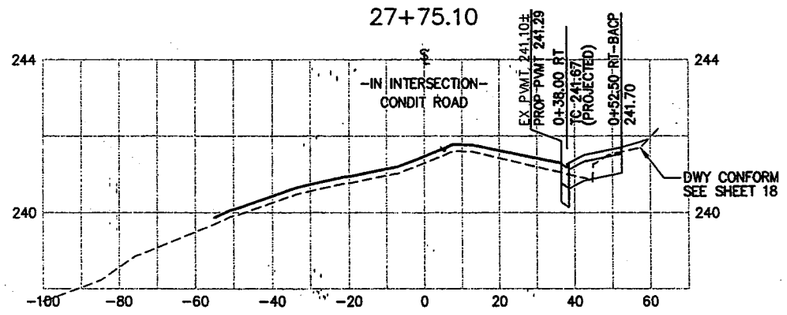
CITY OF LAFAYETTE

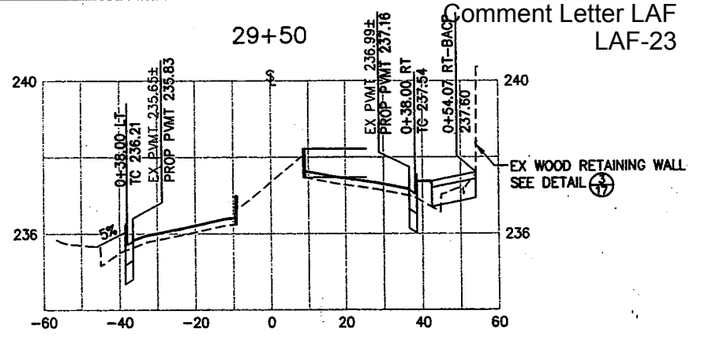
PLEASANT HILL ROAD MULTI-PURPOSE PATH IMPROVEMENTS

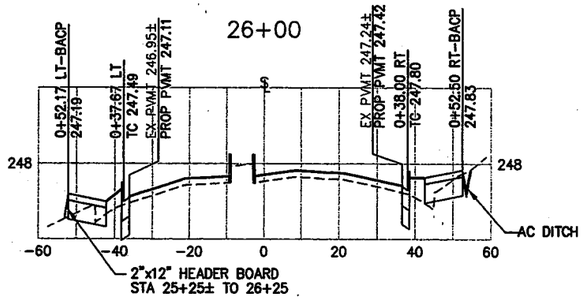
CROSS SECTIONS STA 19+00 TO 24+50

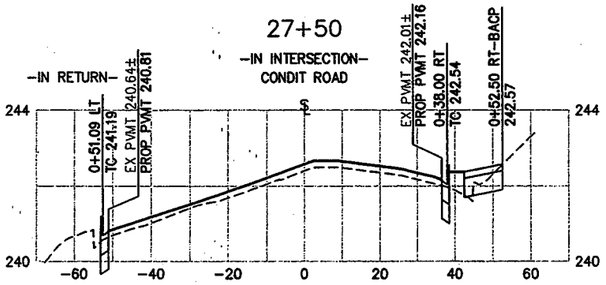
DESIGNED: MA/JDV	PROJECT NO.: 014-9654	SCALE:	H: 1"=20' V: 1"=2'
DRAWN: JJH	ROLL FRAME		
CHECKED: MA	AEI NO: 2307	SHEET	13 OF 38
DATE: JULY 19, 2005	DWG: 2307-XSEC		

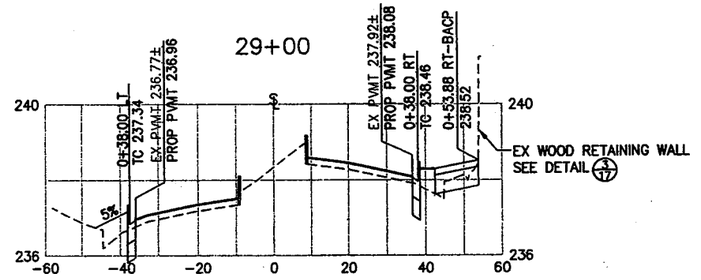


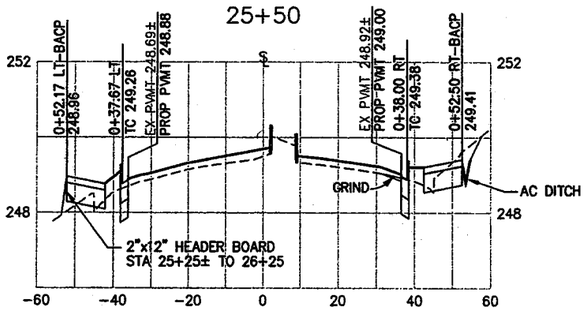


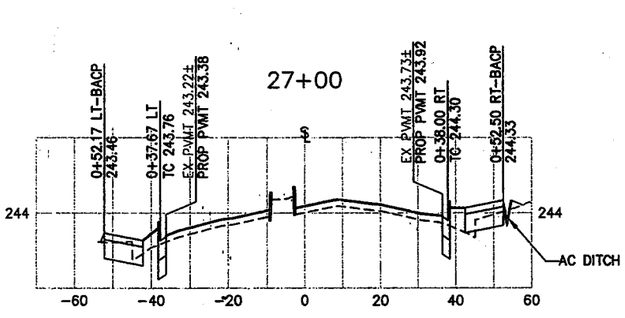


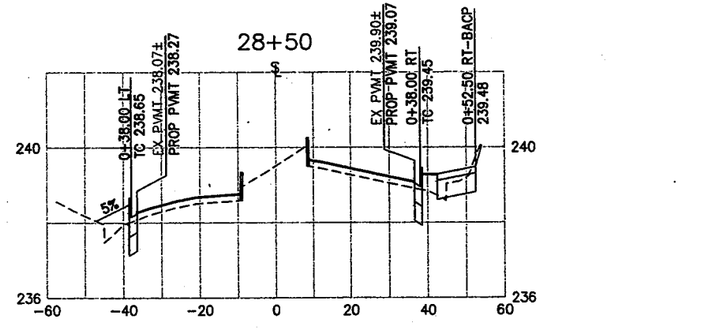


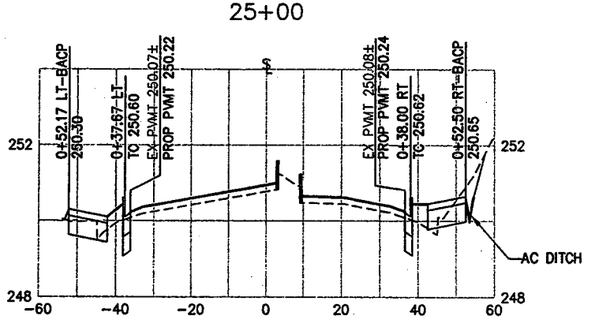


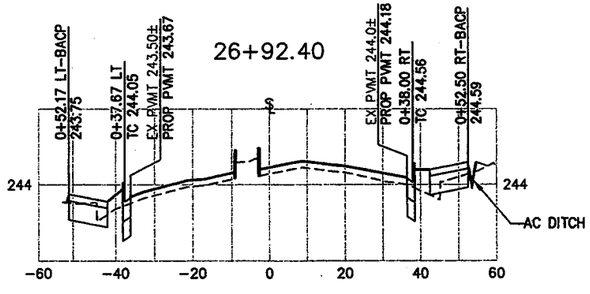


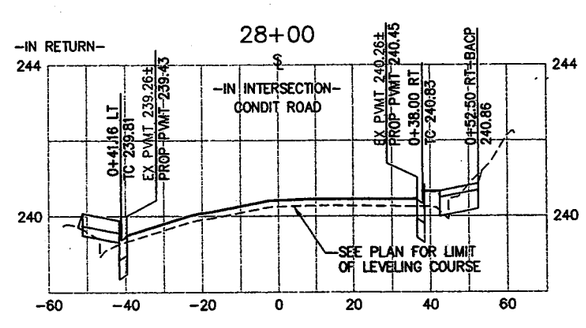












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CONCORD, CA 94521
TEL: (925) 676-3700
FAX: (925) 676-4800

SUBMITTED JULY 19, 2005
PROJECT ENGINEER

REGISTERED PROFESSIONAL ENGINEER MICHAEL ANN No. C 41731 Exp. 03-31-06 CIVIL STATE OF CALIFORNIA

APPROVED _____ 2005
CITY ENGINEER

RECORD DRAWING
(NO WARRANTY AS TO ACCURACY)
DATE ACCEPTED _____
PROJECT ENGINEER

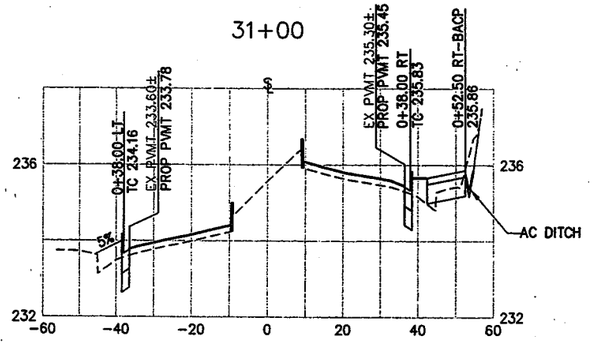
REVISIONS			
NO.	DESCRIPTION	BY	DATE

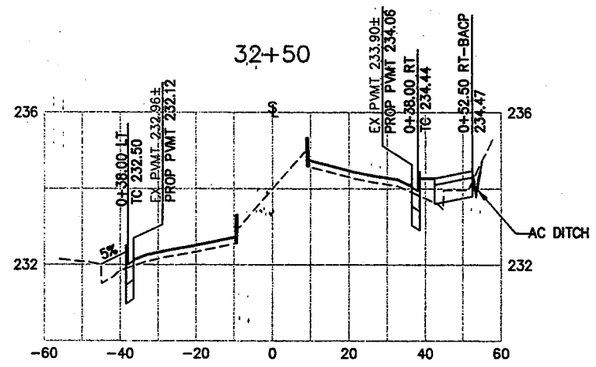
CITY OF LAFAYETTE

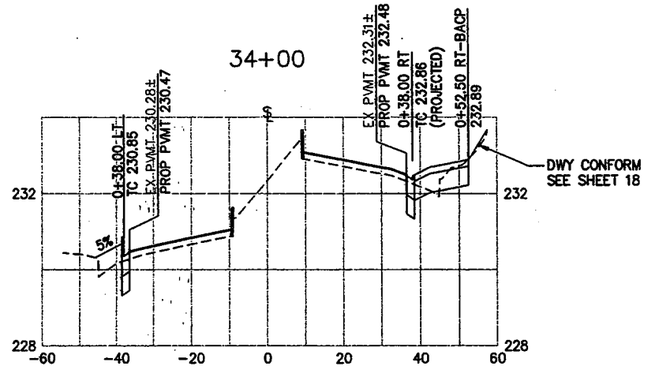
PLEASANT HILL ROAD MULTI-PURPOSE PATH IMPROVEMENTS

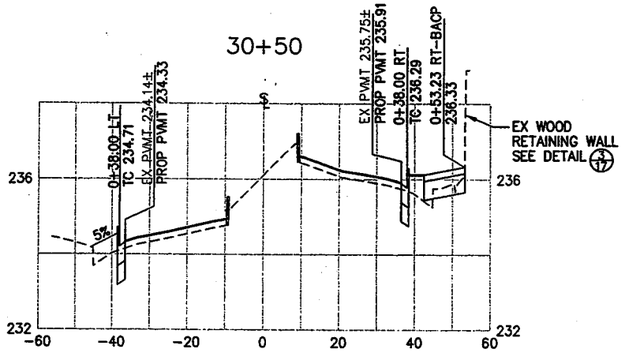
CROSS SECTIONS STA 25+00 TO 29+50

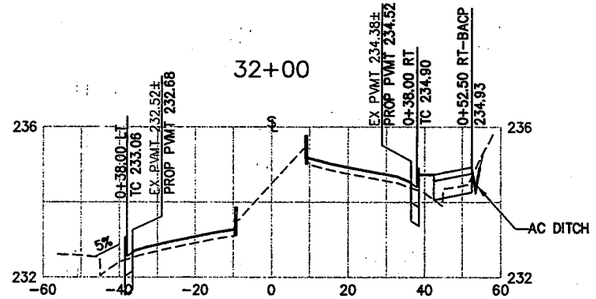
DESIGNED: MA/JDV	PROJECT NO.: 014-9654	SCALE:	H: 1"=20' V: 1"=2'
DRAWN: JJH	ROLL FRAME		
CHECKED: MA	AEI NO: 2307		
DATE: JULY 19, 2005	DWG: 2307-XSEC		SHEET 14 OF 38

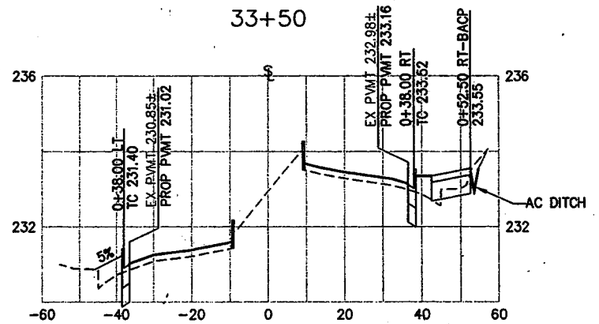


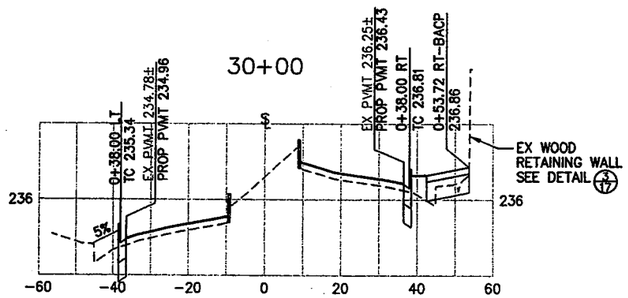


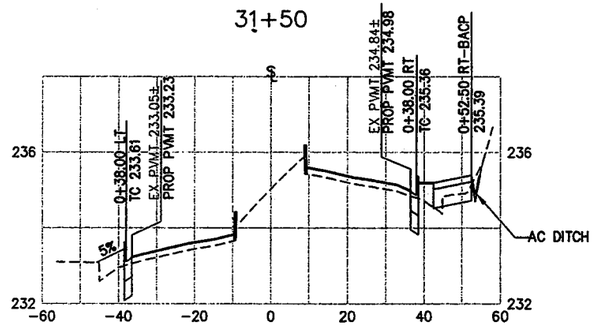


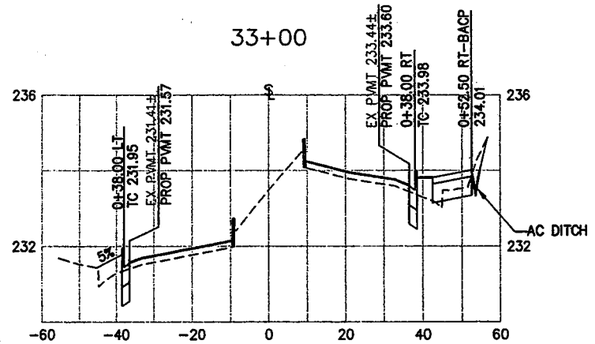












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AZARI ENGINEERING, INC.
4807 CLAYTON ROAD, SUITE 200
CONCORD, CA 94521
TEL: (925) 676-3700
FAX: (925) 676-4800

SUBMITTED JULY 19, 2005
PROJECT ENGINEER

REGISTERED PROFESSIONAL ENGINEER MORTAD AZARI No. C 41731 Exp. 09-31-06 CIVIL STATE OF CALIFORNIA

APPROVED _____ 2005
CITY ENGINEER

RECORD DRAWING
(NO WARRANTY AS TO ACCURACY)
DATE ACCEPTED _____
PROJECT ENGINEER

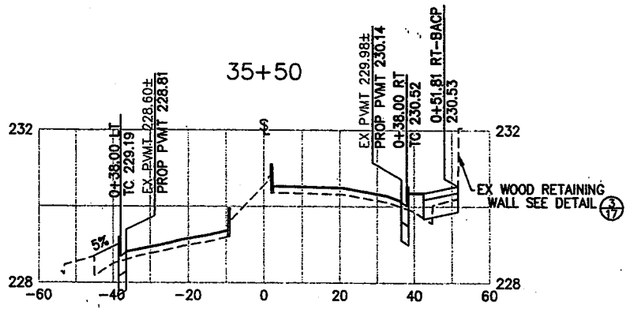
REVISIONS NO.	DESCRIPTION	BY	DATE

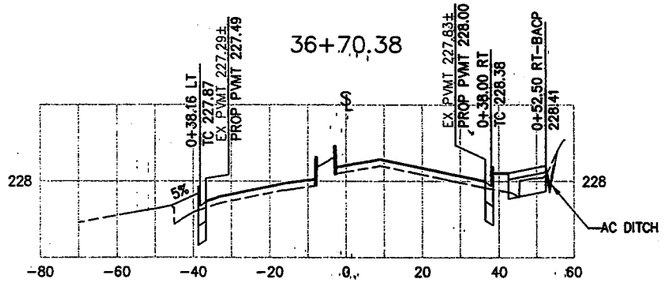
CITY OF LAFAYETTE

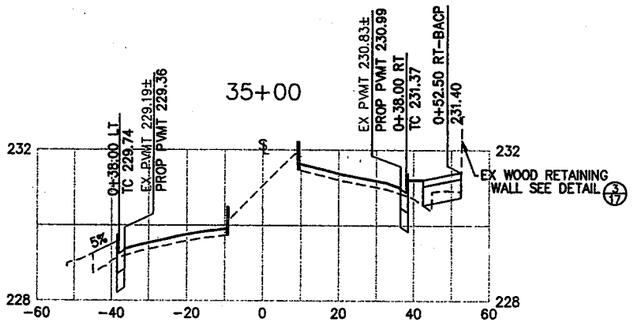
PLEASANT HILL ROAD MULTI-PURPOSE PATH IMPROVEMENTS

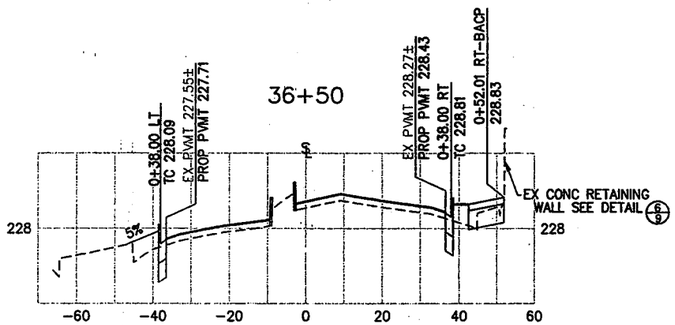
CROSS SECTIONS STA 30+00 TO 34+00

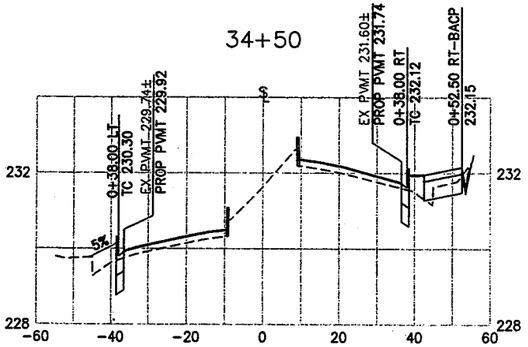
DESIGNED: MA/JDV	PROJECT NO.: 014-9654	SCALE:	H: 1"=20' V: 1"=2'
DRAWN: JJH	ROLL FRAME		
CHECKED: MA	AEI NO: 2307		
DATE: JULY 19, 2005	DWG: 2307-XSEC		

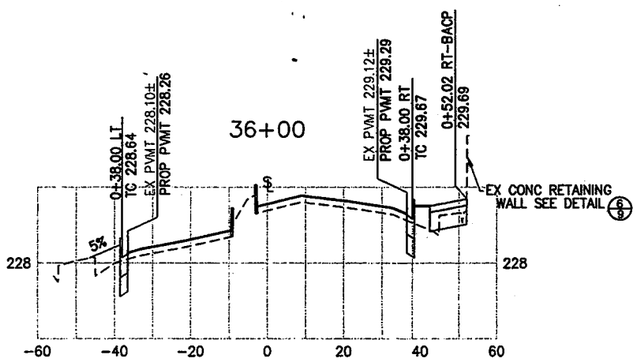


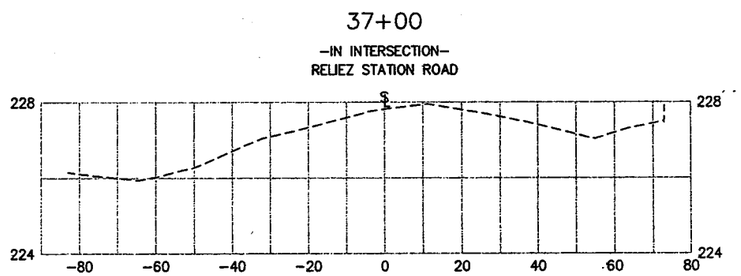












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SUBMITTED JULY 19, 2005
PROJECT ENGINEER

REGISTERED PROFESSIONAL ENGINEER MICHAEL AZARI No. C 41731 Exp. 09-31-06 CIVIL STATE OF CALIFORNIA

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PROJECT ENGINEER

REVISIONS NO.	DESCRIPTION	BY	DATE

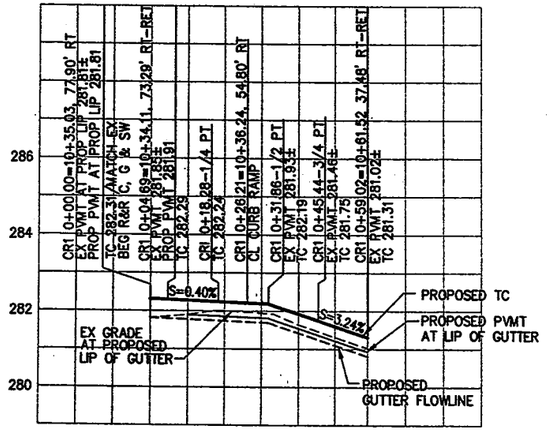
CITY OF LAFAYETTE

PLEASANT HILL ROAD MULTI-PURPOSE PATH IMPROVEMENTS

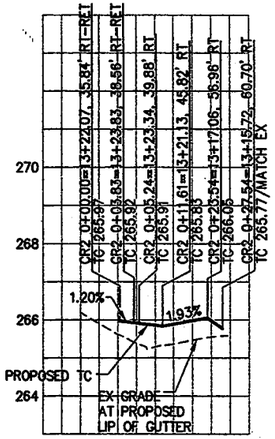
CROSS SECTIONS STA 34+50 TO 36+70.38

DESIGNED: MA/JDV	PROJECT NO.: 014-9654	SCALE:	H: 1"=20' V: 1"=2'
DRAWN: JJH	ROLL: FRAME		
CHECKED: MA	AEI NO: 2307		
DATE: JULY 19, 2005	DWG: 2307-XSEC	SHEET	16 OF 38

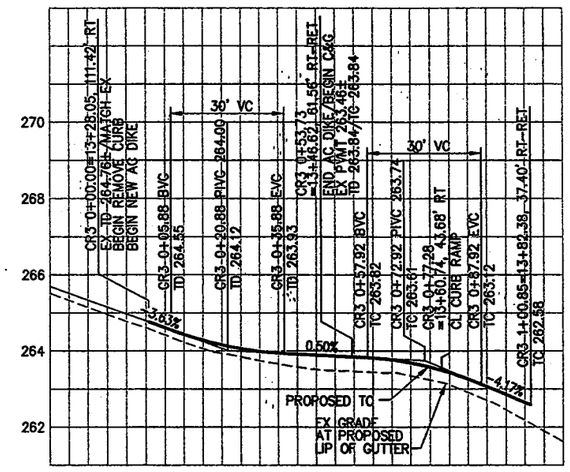
Comment Letter LAF
LAF-23



CR1
SOUTHWEST CR AT MT DIABLO BLVD



CR2
NORTHWEST CR AT SR 24 E/B OFF-RAMP



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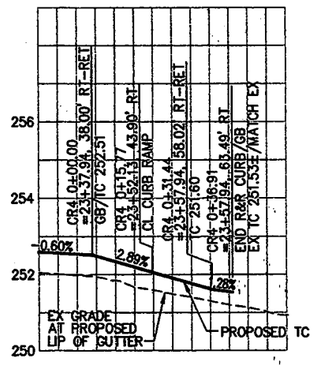

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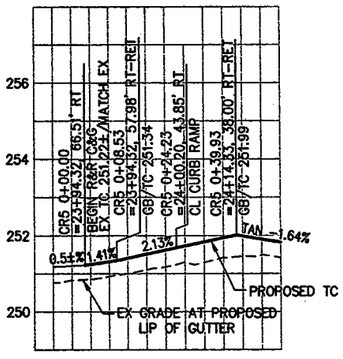
NORTHWEST CR AT AMENO DR



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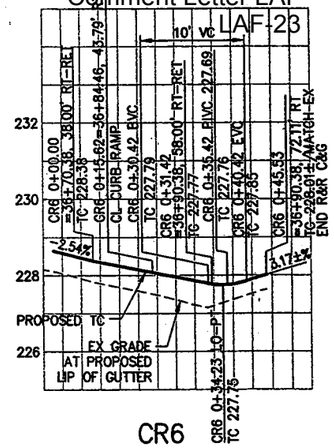
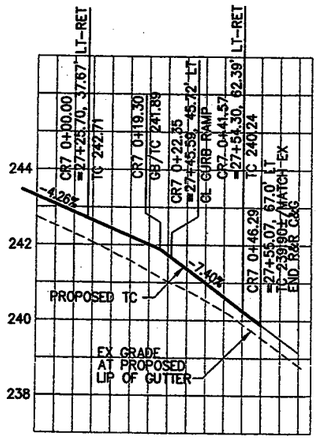
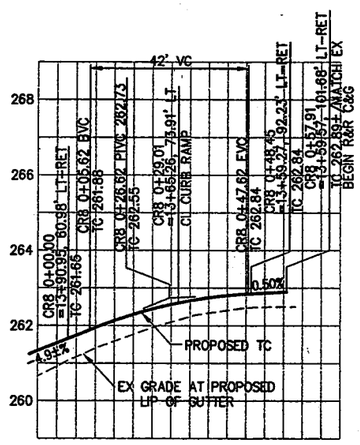


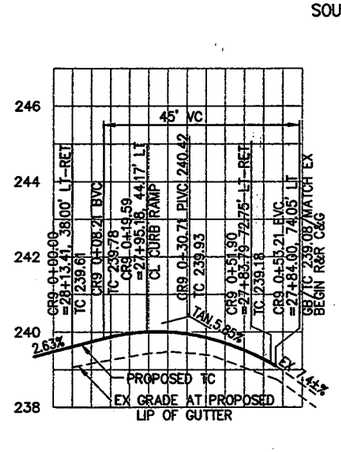
CR6
NORTHWEST CR AT RELIEZ STATION RD



CR7
NORTHEAST CR AT CONDIT RD



CR8
SOUTHEAST CR AT OLD TUNNEL RD



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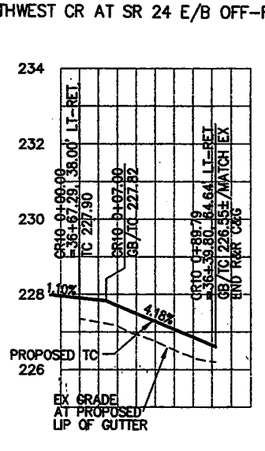
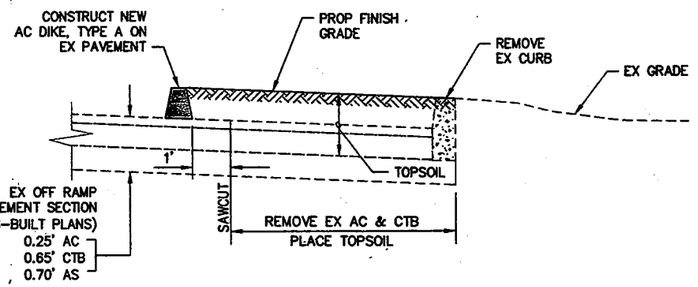
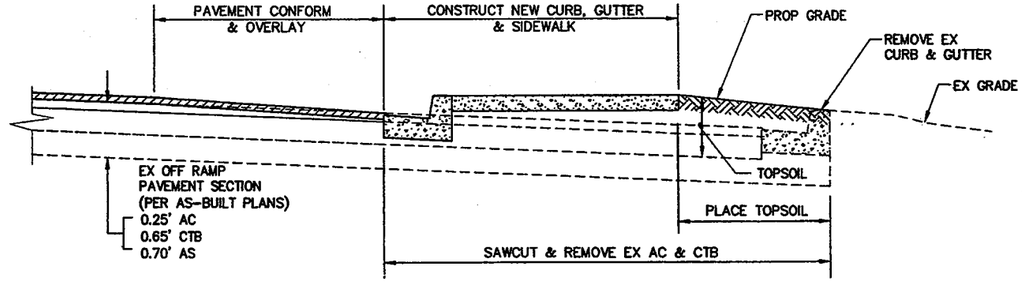
SOUTHEAST CR AT CONDIT RD



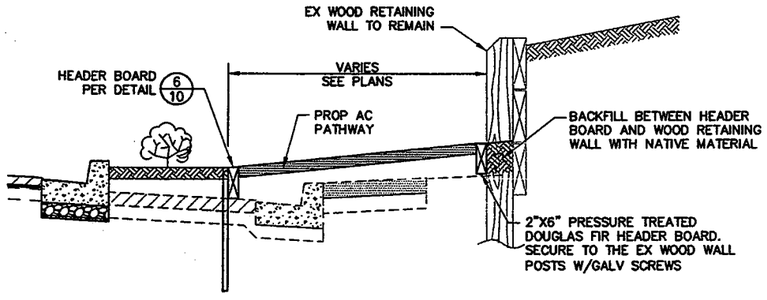
CR10
NORTHEAST CR AT RELIEZ LANE



1/17 NTS **TYPICAL CROSS SECTION AT HWY 24 EB OFF RAMP WITHIN PROPOSED AC DIKE AREA**



2/17 NTS **TYPICAL CROSS SECTION AT HWY 24 EB OFF RAMP WITHIN PROPOSED SIDEWALK AREA**



3/17 NTS **PATHWAY AT EX WOOD RETAINING WALL**

CONTRACTOR TO VERIFY EXISTING UTILITY LOCATIONS PRIOR TO ANY EXCAVATION CALL USA AT (800) 227-2600

AZARI ENGINEERING, INC.
4807 CLAYTON ROAD, SUITE 200
CONCORD, CA 94521
TEL: (925) 676-3700
FAX: (925) 676-4800

REGISTERED PROFESSIONAL ENGINEER — MEHRDAD AZARI — No. C 41731 — Exp. 09-31-06 — CIVIL — STATE OF CALIFORNIA

SUBMITTED JULY 19, 2005
PROJECT ENGINEER

APPROVED _____ 2005
CITY ENGINEER

RECORD DRAWING
(NO WARRANTY AS TO ACCURACY)
DATE ACCEPTED _____
PROJECT ENGINEER

REVISIONS				
NO.	DESCRIPTION	BY	DATE	

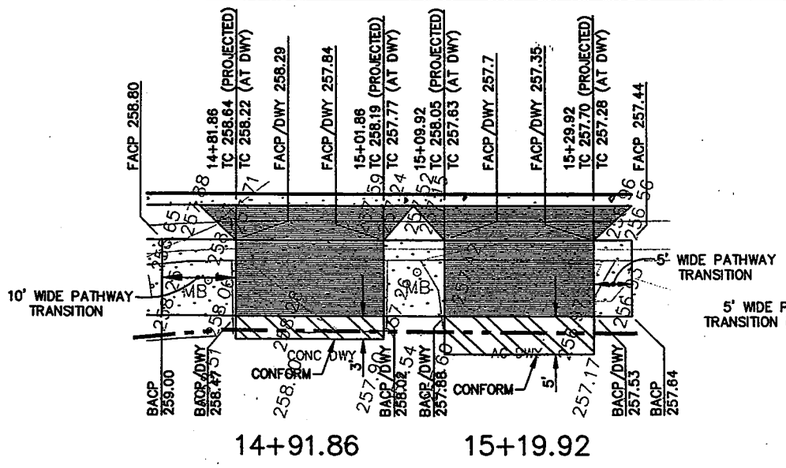
CITY OF LAFAYETTE

PLEASANT HILL ROAD MULTI-PURPOSE PATH IMPROVEMENTS

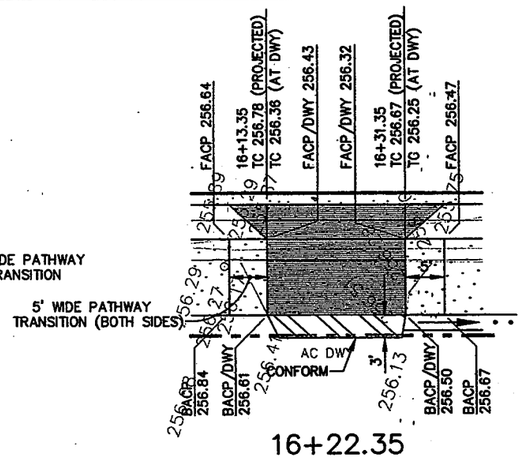
CONSTRUCTION DETAILS AND CURB RETURN PROFILES

DESIGNED: MA/JDV	PROJECT NO.: 014-9654	SCALE:	H 1"=20' V 1"=2'
DRAWN: JJH	ROLL FRAME		
CHECKED: MA	AEI NO: 2307	SHEET	17 OF 38
DATE: JULY 19, 2005	DWG: 2307-CRC-J		

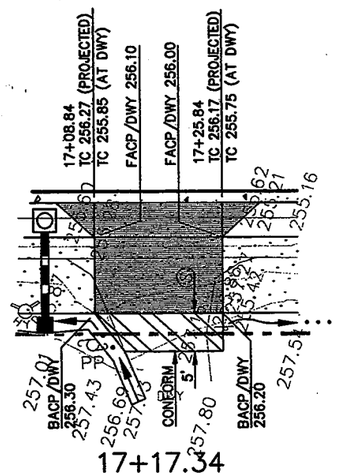
Comment Letter LAF
LAF-23



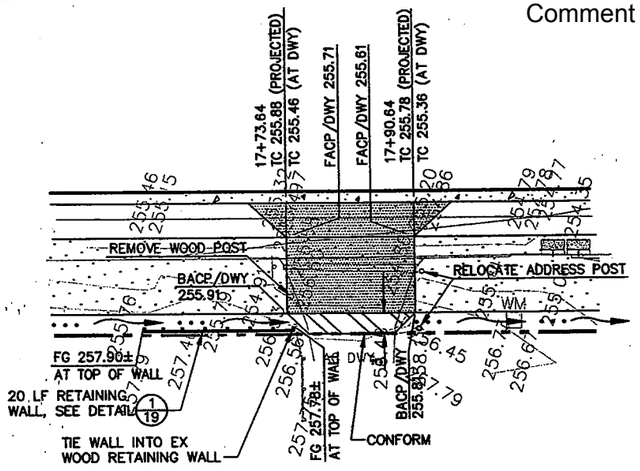
14+91.86 15+19.92



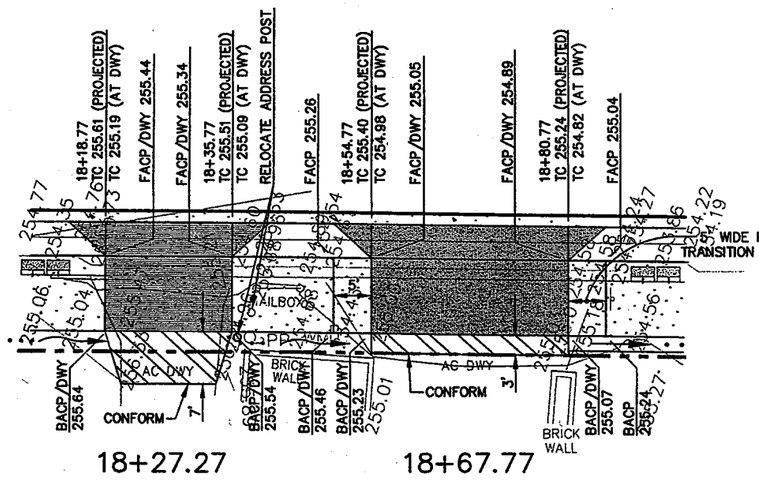
16+22.35



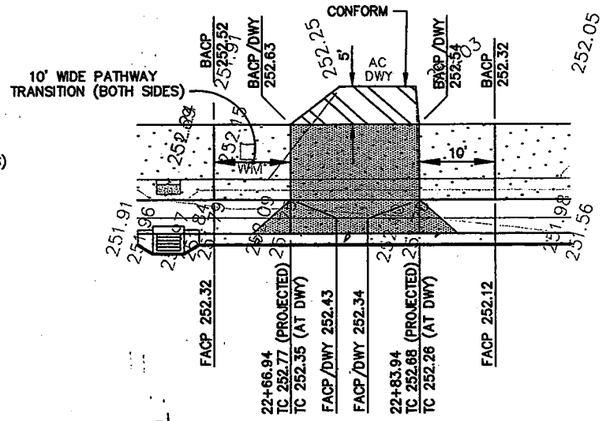
17+17.34



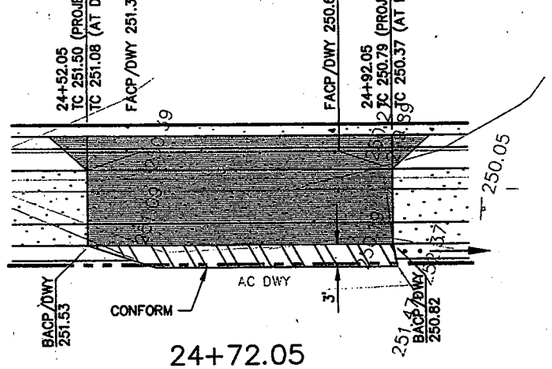
17+82.14



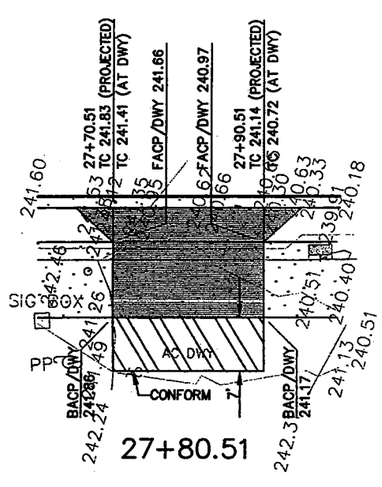
18+27.27 18+67.77



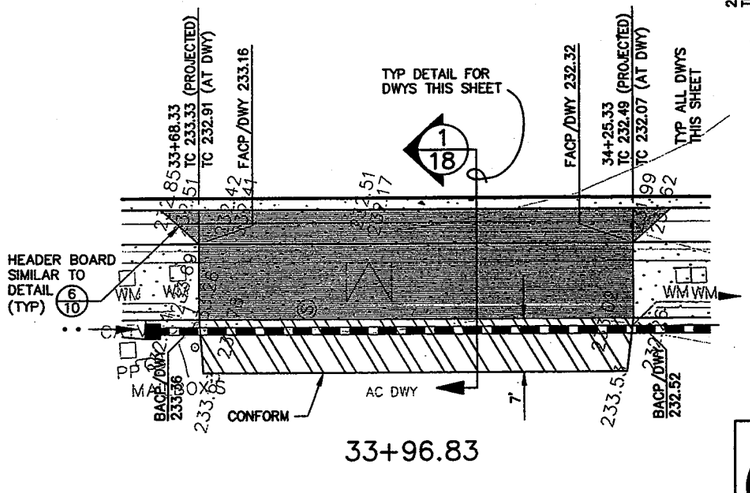
22+75.44



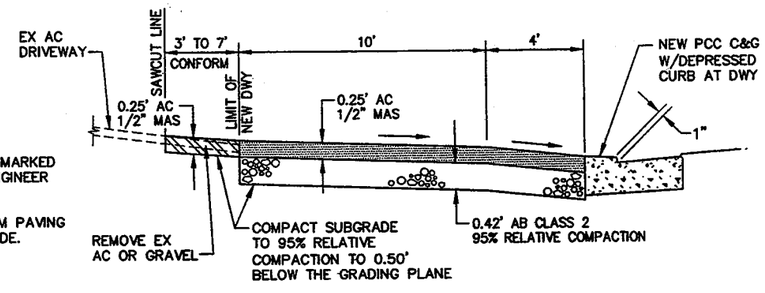
24+72.05



27+80.51



33+96.83



NOTES:

1. SAWCUT LINE SHALL BE MARKED IN THE FIELD BY THE ENGINEER PRIOR TO SAWCUTTING.
2. RAMP SIDES OF CONFORM PAVING TO MATCH EXISTING GRADE.

1/18 NTS NEW DRIVEWAY & PAVING CONFORM DETAIL
(FOR ALL DRIVEWAYS SHOWN ON THIS SHEET)

CONTRACTOR TO VERIFY EXISTING UTILITY LOCATIONS PRIOR TO ANY EXCAVATION CALL USA AT (800) 227-2600

AZARI ENGINEERING, INC.
4807 CLAYTON ROAD, SUITE 200
CONCORD, CA 94521
TEL: (925) 676-3700
FAX: (925) 676-4800

SUBMITTED JULY 19, 2005 PROJECT ENGINEER
APPROVED _____ 2005 CITY ENGINEER
RECORD DRAWING (NO WARRANTY AS TO ACCURACY)
DATE ACCEPTED _____
PROJECT ENGINEER

REGISTERED PROFESSIONAL ENGINEER MORRAD KLAI No. C 41781 Exp. 03-31-06 CIVIL STATE OF CALIFORNIA

REVISIONS

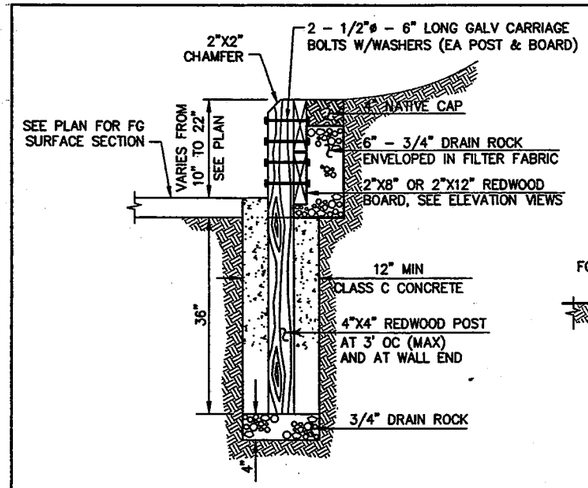
NO.	DESCRIPTION	BY	DATE

CITY OF LAFAYETTE

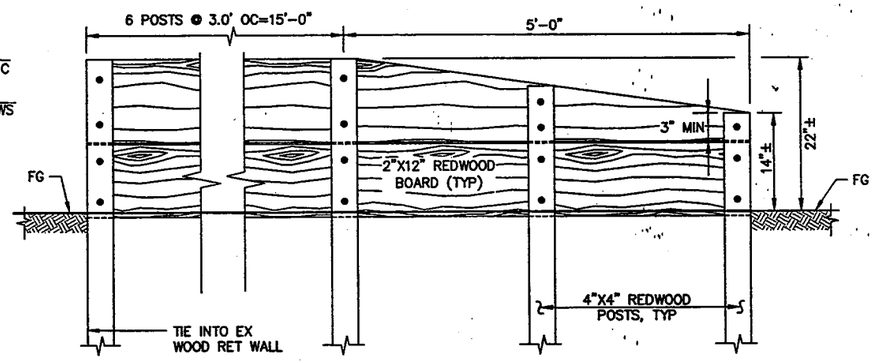
PLEASANT HILL ROAD MULTI-PURPOSE PATH IMPROVEMENTS

PROPOSED DRIVEWAYS AND CONFORM DETAILS

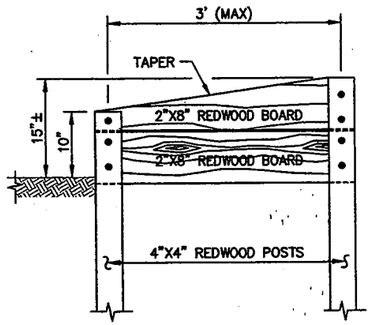
DESIGNED: MA/JDV	PROJECT NO.: 014-9654	SCALE:	1"=10'
DRAWN: JJH	ROLL FRAME		
CHECKED: MA	AEI NO: 2307	SHEET	18 OF 38
DATE: JULY 19, 2005	DWG: 2307-DWY		



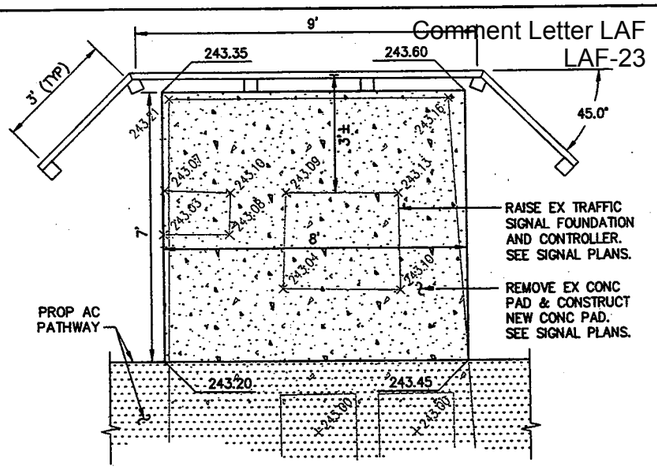
TYPICAL RETAINING WALL SECTION



RETAINING WALL ELEVATION AT STA 17+65±



WING WALL ELEVATION AT STA 27+25±



RETAINING WALL PLAN AT STA 27+25±

NOTE:
FOR RETAINING WALL PLAN AT STATION 17+65±, SEE SHEET 18

1/19 NTS

WOOD RETAINING WALLS

STAGE I
- INSTALL CONSTRUCTION AREA SIGNS
- CLEARING AND GRUBBING
- CONSTRUCT STORM DRAIN FACILITIES
- CONSTRUCT NEW SIGNAL FACILITIES (EXCEPT LOOPS)
- RECONSTRUCT CURB, GUTTER & SIDEWALK FROM STA 10+35±(RT) TO STA 13+85±(RT)
- RESTORE EXISTING LANDSCAPING FROM STA 10+35±(RT) TO STA 12+00±(RT)

STAGE II
- REMOVE EXISTING CURB & GUTTER STA 13+85 TO STA 37+00
- REMOVE EXISTING PAVEMENT & BASE TO CONSTRUCT NEW CURB & GUTTER
- REMOVE EXISTING PAVEMENT SECTION WITHIN THE PROPOSED LANDSCAPE AREAS
- GRADE FOR PROPOSED PATHWAY
- CONSTRUCT NEW CURB, GUTTER & CURB RAMPS
- CONSTRUCT NEW RETAINING WALL
- CONSTRUCT AC PATHWAY
- INSTALL NEW SUBDRAIN SYSTEM
- INSTALL NEW IRRIGATION & LANDSCAPING

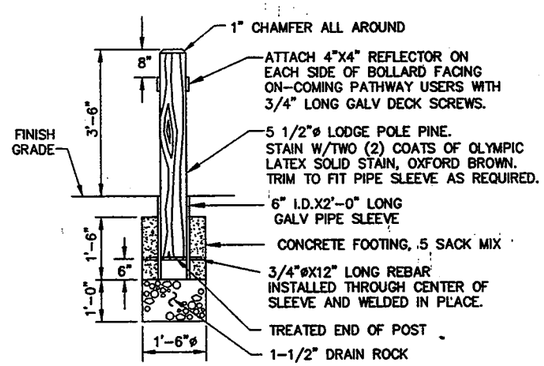
STAGE III
- CONSTRUCT BASE FAILURE REPAIRS
- WEDGE GRIND
- CRACK SEALING
- COLD PLANE CONFORMS
- REMOVE EXISTING STRIPING/PLACE TEMPORARY STRIPING
- PLACE AC OVERLAY/TEMP STRIPING

STAGE IV
- RAISE EXISTING UTILITIES WITHIN THE PAVEMENT AREA
- PLACE PERMANENT MARKINGS AND STRIPING
- REMOVE CONSTRUCTION AREA SIGNS
- BEGIN LANDSCAPE MAINTENANCE PERIOD

GENERAL NOTE:

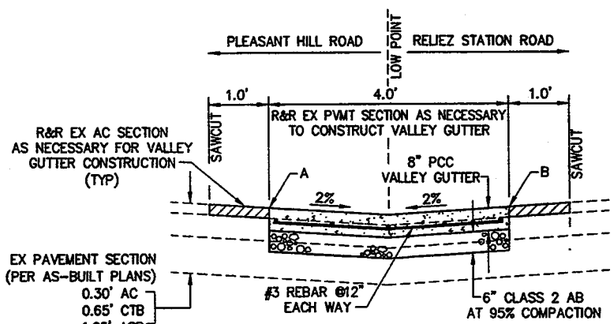
PRIOR TO COMMENCING ANY WORK OR ACTIVITY ON ANY SUBSEQUENT STAGES OF CONSTRUCTION, THE PREVIOUS STAGE OF CONSTRUCTION SHALL BE COMPLETED IN ITS ENTIRETY TO THE SATISFACTION OF THE ENGINEER, UNLESS OTHERWISE APPROVED BY THE ENGINEER.

CONTRACTOR TO VERIFY EXISTING UTILITY LOCATIONS PRIOR TO ANY EXCAVATION CALL USA AT (800) 227-2600



2/19 NTS

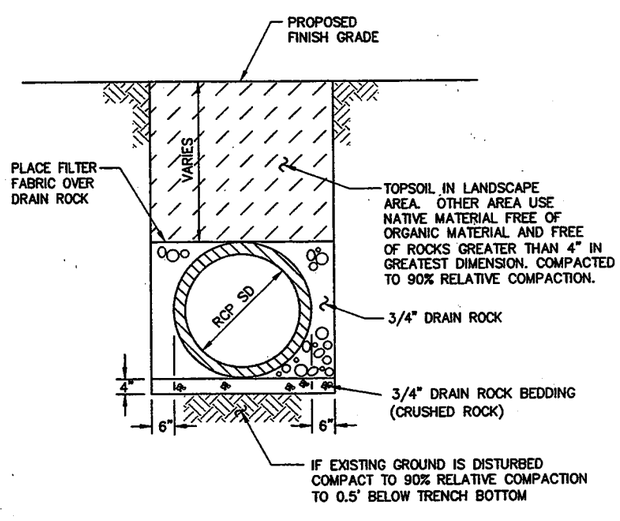
REMOVABLE WOOD BOLLARD



NOTES:
1. POINTS A & B SHALL BE AT THE SAME STATION
2. SEE CCC STANDARD PLAN CA73I FOR ADDITIONAL NOTES

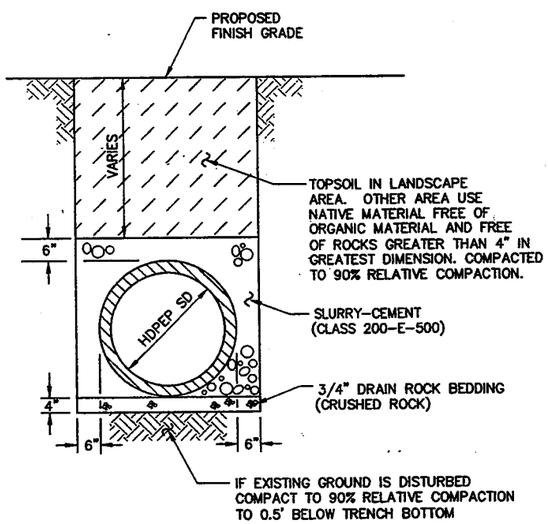
5/19 NTS

VALLEY GUTTER AT RELIEZ STATION ROAD



3/19 NTS

RCP STORM DRAIN TRENCH BACKFILL & BEDDING IN NON-ROADWAY AREAS



4/19 NTS

HDPEP STORM DRAIN TRENCH BACKFILL & BEDDING IN NON-ROADWAY AREAS

AZARI ENGINEERING, INC.
4807 CLAYTON ROAD, SUITE 200
CONCORD, CA 94521
TEL: (925) 676-3700
FAX: (925) 676-4800

SUBMITTED JULY 19, 2005
PROJECT ENGINEER

APPROVED _____ 2005
CITY ENGINEER

RECORD DRAWING
(NO WARRANTY AS TO ACCURACY)
DATE ACCEPTED _____
PROJECT ENGINEER

REGISTERED PROFESSIONAL ENGINEER — MICHAEL A. AZARI — No. C 41731 — Exp. 09-31-06 — CIVIL — STATE OF CALIFORNIA

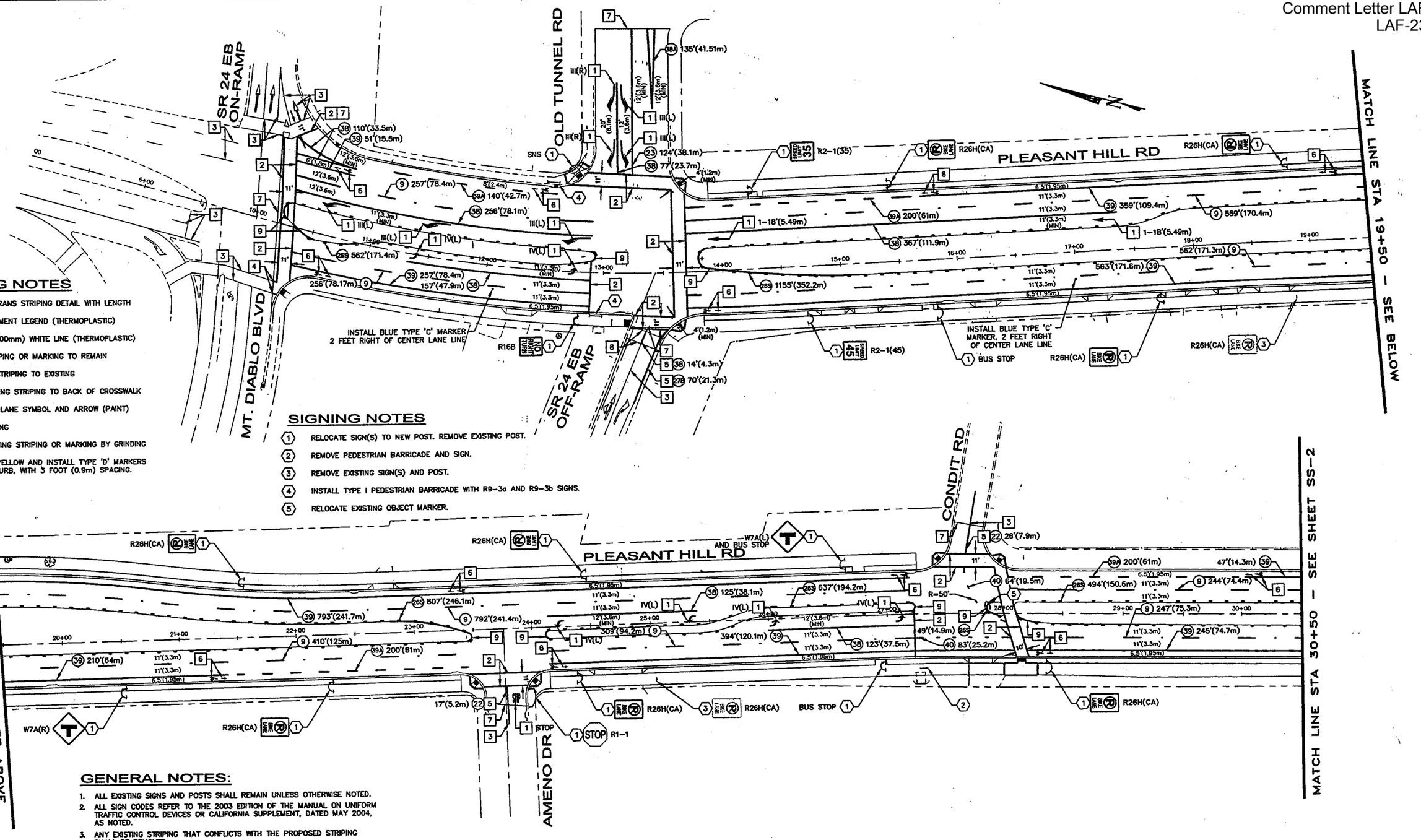
REVISIONS				
NO.	DESCRIPTION	BY	DATE	

CITY OF LAFAYETTE

PLEASANT HILL ROAD MULTI-PURPOSE PATH IMPROVEMENTS

CONSTRUCTION DETAILS & STAGE CONSTRUCTION PLAN

DESIGNED: MA/JDV | PROJECT NO.: 014-9654 | SCALE: NO SCALE
DRAWN: JJH | ROLL FRAME
CHECKED: MA | AEI NO: 2307 | SHEET 19 OF 38
DATE: JULY 19, 2005 | DWG: 2307-SC



STRIPING NOTES

- (XX) INSTALL CALTRANS STRIPING DETAIL WITH LENGTH
- 1 INSTALL PAVEMENT LEGEND (THERMOPLASTIC)
- 2 INSTALL 12"(300mm) WHITE LINE (THERMOPLASTIC)
- 3 EXISTING STRIPING OR MARKING TO REMAIN
- 4 MATCH NEW STRIPING TO EXISTING
- 5 EXTEND EXISTING STRIPING TO BACK OF CROSSWALK
- 6 INSTALL BIKE LANE SYMBOL AND ARROW (PAINT)
- 7 LIMIT OF PAVING
- 8 REMOVE EXISTING STRIPING OR MARKING BY GRINDING
- 9 PAINT CURB YELLOW AND INSTALL TYPE 'D' MARKERS ON TOP OF CURB, WITH 3 FOOT (0.9m) SPACING.

SIGNING NOTES

1. RELOCATE SIGN(S) TO NEW POST. REMOVE EXISTING POST.
2. REMOVE PEDESTRIAN BARRICADE AND SIGN.
3. REMOVE EXISTING SIGN(S) AND POST.
4. INSTALL TYPE I PEDESTRIAN BARRICADE WITH R9-3a AND R9-3b SIGNS.
5. RELOCATE EXISTING OBJECT MARKER.

GENERAL NOTES:

1. ALL EXISTING SIGNS AND POSTS SHALL REMAIN UNLESS OTHERWISE NOTED.
2. ALL SIGN CODES REFER TO THE 2003 EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES OR CALIFORNIA SUPPLEMENT, DATED MAY 2004, AS NOTED.
3. ANY EXISTING STRIPING THAT CONFLICTS WITH THE PROPOSED STRIPING SHALL BE REMOVED.
4. ALL BIKE LANE WIDTHS, WHEN ADJACENT TO THE CURB AND GUTTER, ARE MEASURED FROM THE FACE OF CURB.
5. LAYOUT AND CONTROL MARKS SHALL BE PLACED BY THE CONTRACTOR AND APPROVED BY THE CITY PRIOR TO THE PLACEMENT OF ANY PERMANENT STRIPING, MARKERS, OR MARKING.

GRAPHIC SCALE

(IN FEET)
1 inch = 40 ft.

CA: 1-800-227-2600
CALL BEFORE YOU DIG
UNDERGROUND SERVICE ALERT
CA: 1-800-227-2600
CALL TWO WORKING DAYS BEFORE YOU DIG

Kimley-Horn and Associates, Inc.
2000 Crow Canyon Place, Suite 410
San Ramon, California 94583
Tel. No. (925) 543-0840 © 2005
Fax No. (925) 543-0839

SUBMITTED JULY 15, 2005
PROJECT ENGINEER

REGISTERED PROFESSIONAL ENGINEER BRIAN E. SOWERS No. 60296 06/30/06 CIVIL STATE OF CALIFORNIA

APPROVED _____ 2005
CITY ENGINEER

RECORD DRAWING
(NO WARRANTY AS TO ACCURACY)
DATE ACCEPTED _____
PROJECT ENGINEER

LAFAYETTE

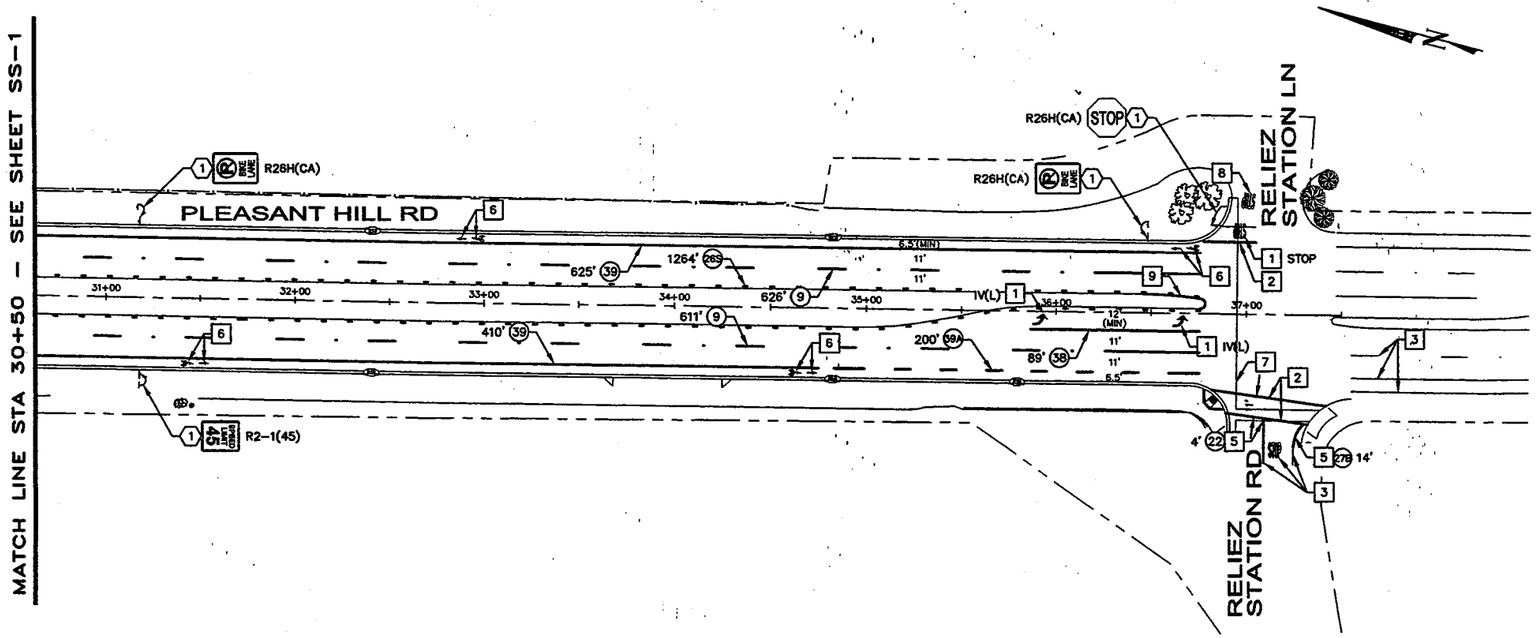
REVISIONS NO.	DESCRIPTION	BY	DATE

CITY OF LAFAYETTE

PLEASANT HILL ROAD MULTI-PURPOSE PATH IMPROVEMENTS

SIGNING AND STRIPING PLAN STA 8+00 TO STA 30+50 SS-1

DESIGNED: DTB	CHECKED: BES	SCALE: 1" = 40'	
DRAWN: LAM	DATE: 7/18/05		
ROLL FRAME	PROJECT NO.: 014-9654	SHEET 20 OF 38	
AEI NO: 2307			



STRIPING NOTES

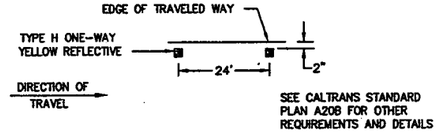
- (XX) INSTALL CALTRANS STRIPING DETAIL WITH LENGTH
- [1] INSTALL PAVEMENT LEGEND (THERMOPLASTIC)
- [2] INSTALL 12"(300mm) WHITE LINE (THERMOPLASTIC)
- [3] EXISTING STRIPING OR MARKING TO REMAIN
- [4] MATCH NEW STRIPING TO EXISTING
- [5] EXTEND EXISTING STRIPING TO BACK OF CROSSWALK
- [6] INSTALL BIKE LANE SYMBOL AND ARROW (PAINT)
- [7] LIMIT OF PAVING
- [8] REMOVE EXISTING STRIPING OR MARKING BY GRINDING
- [9] PAINT CURB YELLOW AND INSTALL TYPE 'D' MARKERS ON TOP OF CURB, WITH 3 FOOT (0.9m) SPACING.

SIGNING NOTES

- ⟨1⟩ RELOCATE SIGN(S) TO NEW POST. REMOVE EXISTING POST.
- ⟨2⟩ REMOVE PEDESTRIAN BARRICADE AND SIGN.
- ⟨3⟩ REMOVE EXISTING SIGN(S) AND POST.
- ⟨4⟩ INSTALL TYPE I PEDESTRIAN BARRICADE WITH R9–3a AND R9–3b SIGNS.
- ⟨5⟩ RELOCATE EXISTING OBJECT MARKER.

GENERAL NOTES:

1. ALL EXISTING SIGNS AND POSTS SHALL REMAIN UNLESS OTHERWISE NOTED.
2. ALL SIGN CODES REFER TO THE 2003 EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES OR CALIFORNIA SUPPLEMENT, DATED MAY 2004, AS NOTED.
3. ANY EXISTING STRIPING THAT CONFLICTS WITH THE PROPOSED STRIPING SHALL BE REMOVED.
4. ALL BIKE LANE WIDTHS, WHEN ADJACENT TO THE CURB AND GUTTER, ARE MEASURED FROM THE FACE OF CURB.
5. LAYOUT AND CONTROL MARKS SHALL BE PLACED BY THE CONTRACTOR AND APPROVED BY THE CITY PRIOR TO THE PLACEMENT OF ANY PERMANENT STRIPING, MARKERS, OR MARKING.



SEE CALTRANS STANDARD PLAN A20B FOR OTHER REQUIREMENTS AND DETAILS

DETAIL 26S
NTS

STRIPING SCHEDULE

DETAIL	PATTERN OR LEGEND	INSTALL(LF)
9	LANE LINE	4873
22	CENTER LINE	47
23	CENTER LINE	124
26S	LEFT EDGELINE	4968
27E	RIGHT EDGE LINE	84
38	CHANNELIZING LINE	1318
38A	CHANNELIZING LINE	135
39	BIKE LANE LINE	3954
39A	INTERSECTION BIKE LANE LINE	940
40	CENTER LINE EXTENSION (YELLOW)	147
	TOTAL	16590

THERMOPLASTIC UNLESS OTHERWISE NOTED

SIGN SCHEDULE

MUTCD CODE	DESCRIPTION	RELOCATE	INSTALL	REMOVE
R1–1	STOP SIGN	2	–	–
R2–1	SPEED LIMIT SIGN	3	–	–
R9–3a	NO PEDESTRIAN CROSSING SIGN	–	2	–
R9–3b	USE CROSSWALK SIGN	–	2	–
R16b	NO RIGHT TURN	1	–	–
R26H(CA)	NO PARKING SYMBOL/BIKE LANE	10	–	2
R49(CA)	PED. CROSSING BARRICADE SIGN	–	–	1
W7A	T–INTERSECTION SYMBOL SIGN	2	–	–
–	BUS STOP	3	–	–
–	K–1 OBJECT MARKER	1	–	–
–	STREET NAME SIGN	1	–	–
	TOTAL	23	4	3

PAVEMENT MARKING SCHEDULE

PATTERN OR LEGEND		INSTALL No.	INSTALL TOTAL SQ. FT.
12" WHITE THERMOPLASTIC LINE		1247 LF	1247
YELLOW REFLECTOR PAINT		390 LF	390
(THERMOPLASTIC)	TYPE III(L)	5	210
(THERMOPLASTIC)	TYPE III(R)	2	84
(THERMOPLASTIC)	TYPE IV(L)	8	120
(THERMOPLASTIC)	TYPE I–18'	2	50
(PAINT)	BIKE LANE ARROW	15	105
(PAINT)	BIKE LANE SYMBOL	15	105
(THERMOPLASTIC)	STOP WORD	2	44
TOTAL			2355

CA: 1–800–227–2600 CALL BEFORE YOU DIG UNDERGROUND SERVICE ALERT
CA: 1–800–227–2600
CALL TWO WORKING DAYS BEFORE YOU DIG

GRAPHIC SCALE
40 0 20 40 80
(IN FEET)
1 inch = 40 ft.

Kimley-Horn and Associates, Inc.
2000 Crow Canyon Place, Suite 410
San Ramon, California 94583
Tel. No. (925) 543-0840
Fax No. (925) 543-0839
©2005

REGISTERED PROFESSIONAL ENGINEER BRYAN L. SOWERS No. 60295 06/30/06 CIVIL STATE OF CALIFORNIA

SUBMITTED JULY 15, 2005
PROJECT ENGINEER

APPROVED _____ 2005
CITY ENGINEER

RECORD DRAWING
(NO WARRANTY AS TO ACCURACY)
DATE ACCEPTED _____
PROJECT ENGINEER

LAFAYETTE

REVISIONS NO.	DESCRIPTION	BY	DATE

CITY OF LAFAYETTE

PLEASANT HILL ROAD MULTI-PURPOSE PATH IMPROVEMENTS

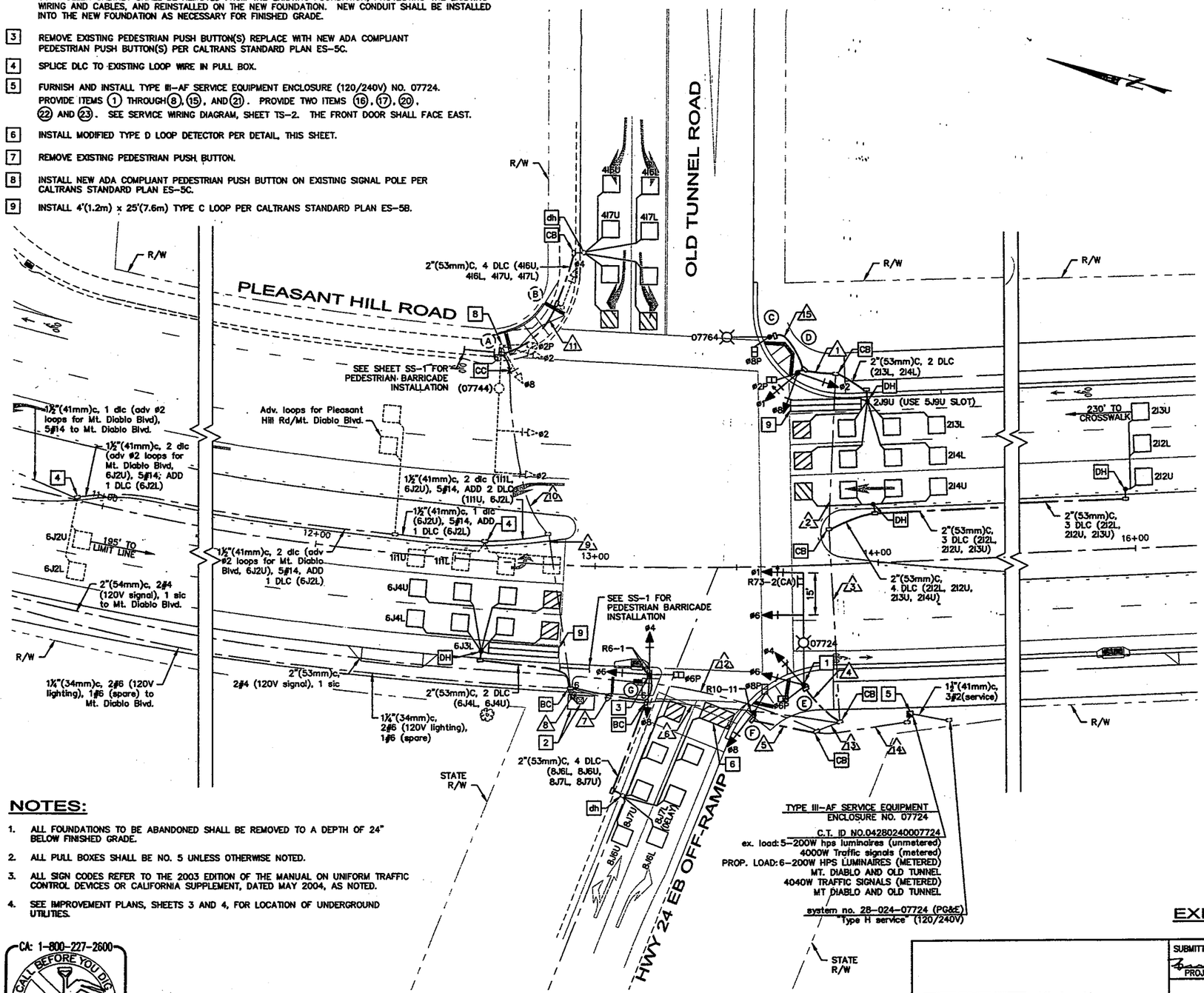
SIGNING AND STRIPING PLAN STA 30+50 TO STA 38+50 SS-2

DESIGNED: DTB	CHECKED: BES	SCALE: 1" = 40'	
DRAWN: LAM	DATE: 7/18/05		
ROLL FRAME	PROJECT NO.: 014–9654	SHEET 21 OF 38	
AEI NO: 2307			

Comment Letter LAF
LAF-23

CONSTRUCTION NOTES

1. FURNISH AND INSTALL PHOTO ELECTRIC UNIT (PEU) PER CALTRANS STANDARD PLAN ES-7N.
2. REMOVE EXISTING CONTROLLER PAD AND FOUNDATION AND INSTALL NEW PAD AND FOUNDATION (SEE CALTRANS STANDARD PLAN ES-3C FOR DETAIL) AT THE NEW PROPOSED GRADE. THE EXISTING CONTROLLER CABINET SHALL BE REMOVED FROM THE EXISTING FOUNDATION, PROTECTING THE EXISTING WIRING AND CABLES, AND REINSTALLED ON THE NEW FOUNDATION. NEW CONDUIT SHALL BE INSTALLED INTO THE NEW FOUNDATION AS NECESSARY FOR FINISHED GRADE.
3. REMOVE EXISTING PEDESTRIAN PUSH BUTTON(S) REPLACE WITH NEW ADA COMPLIANT PEDESTRIAN PUSH BUTTON(S) PER CALTRANS STANDARD PLAN ES-5C.
4. SPLICE DLC TO EXISTING LOOP WIRE IN PULL BOX.
5. FURNISH AND INSTALL TYPE III-AF SERVICE EQUIPMENT ENCLOSURE (120/240V) NO. 07724. PROVIDE ITEMS (1) THROUGH (8), (15), AND (21). PROVIDE TWO ITEMS (16), (17), (20), (22) AND (23). SEE SERVICE WIRING DIAGRAM, SHEET TS-2. THE FRONT DOOR SHALL FACE EAST.
6. INSTALL MODIFIED TYPE D LOOP DETECTOR PER DETAIL, THIS SHEET.
7. REMOVE EXISTING PEDESTRIAN PUSH BUTTON.
8. INSTALL NEW ADA COMPLIANT PEDESTRIAN PUSH BUTTON ON EXISTING SIGNAL POLE PER CALTRANS STANDARD PLAN ES-5C.
9. INSTALL 4'(1.2m) x 25'(7.6m) TYPE C LOOP PER CALTRANS STANDARD PLAN ES-5B.

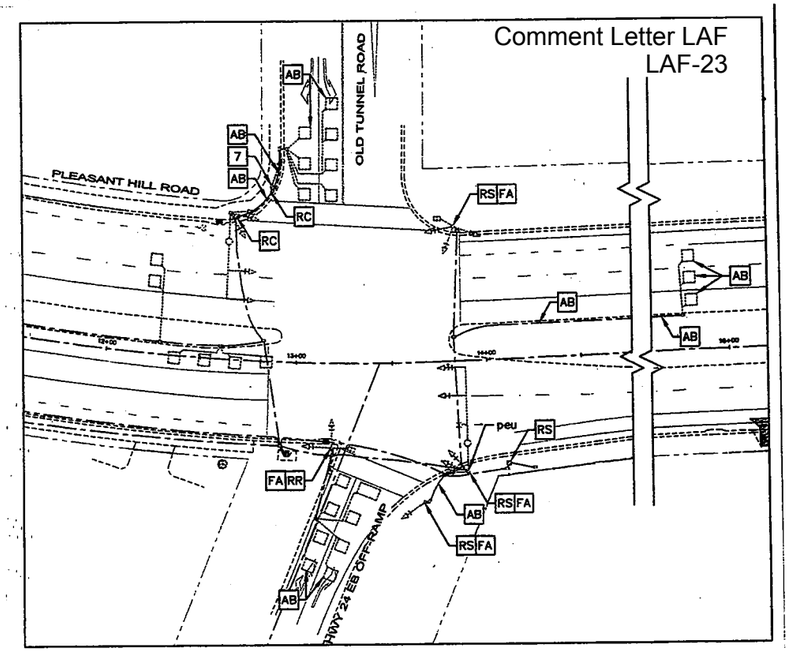


NOTES:

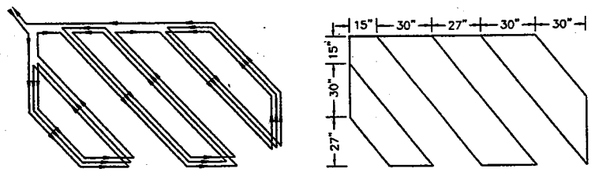
1. ALL FOUNDATIONS TO BE ABANDONED SHALL BE REMOVED TO A DEPTH OF 24" BELOW FINISHED GRADE.
2. ALL PULL BOXES SHALL BE NO. 5 UNLESS OTHERWISE NOTED.
3. ALL SIGN CODES REFER TO THE 2003 EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES OR CALIFORNIA SUPPLEMENT, DATED MAY 2004, AS NOTED.
4. SEE IMPROVEMENT PLANS, SHEETS 3 AND 4, FOR LOCATION OF UNDERGROUND UTILITIES.

CA: 1-800-227-2600 CALL BEFORE YOU DIG USA UNDERGROUND SERVICE ALERT CA: 1-800-227-2600
CALL TWO WORKING DAYS BEFORE YOU DIG

GRAPHIC SCALE
20 0 10 20 40
(IN FEET)
1 inch = 20 ft.



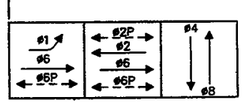
EXISTING SIGNAL EQUIPMENT
SCALE 1"=40'



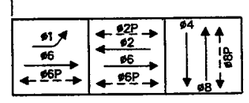
WINDING DETAIL SAWCUT DETAIL

DETAIL
MODIFIED TYPE D LOOP DETECTOR

1. ROUND CORNERS OF ACUTE ANGLE SAWCUTS TO PREVENT DAMAGE TO CONDUCTORS.
2. INSTALL 3 TURNS WHEN ONLY ONE TYPE D LOOP IN ON A SENSOR UNIT CHANNEL. INSTALL 5 TURNS WHEN ON TYPE D LOOP IS CONNECTED IN SERIES WITH 3 ADDITIONAL 1.8 m (6'x6') LOOPS ON A SENSOR UNIT CHANNEL.
3. ALL OTHER INSTALLATION DETAILS PER CALTRANS STANDARD PLAN ES-5A.



EXISTING PHASE DIAGRAM



PROPOSED PHASE DIAGRAM

Kimley-Horn and Associates, Inc.
2000 Crow Canyon Place, Suite 410 San Ramon, California 94583
Tel. No. (925) 543-0840 Fax No. (925) 543-0839

SUBMITTED JULY 19, 2005 PROJECT ENGINEER 7/19/05
REGISTERED PROFESSIONAL ENGINEER BRIAN E. SOWERS No. 60296 06/30/06 CIVIL STATE OF CALIFORNIA
APPROVED _____ 2005
CITY ENGINEER
RECORD DRAWING (NO WARRANTY AS TO ACCURACY)
DATE ACCEPTED _____
PROJECT ENGINEER

LAFAYETTE

CITY OF LAFAYETTE
PLEASANT HILL ROAD MULTI-PURPOSE PATH IMPROVEMENTS
HWY 25/OLD TUNNEL ROAD SIGNAL MODIFICATION TS-1

REVISIONS NO.	DESCRIPTION	BY	DATE

DESIGNED: DTB CHECKED: BES SCALE: 1" = 20'
DRAWN: LAM DATE: 7/18/05
ROLL FRAME PROJECT NO.: 014-9654 SHEET 22 OF 38
AEI NO: 2307

Comment Letter LAF
LAF-23

CONDUCTOR SCHEDULE

AWG OR CABLE	CONDUCTOR DESIGNATION	NUMBER OF CONDUCTORS — RUN NUMBER 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
NO. 14	#1	3	3	3	3	–	3	3	3	–	–	–	–	–	–	–
	#2	3	3	3	–	–	3	3	6	3	3	–	–	–	–	–
	#4	–	–	–	3	–	3	3	6	3	3	3	–	–	–	–
	#6	–	–	–	3	–	3	3	3	–	–	–	–	–	–	–
	#8	3	3	3	–	3	–	3	3/6	3	3	–	3	3	–	–
	#2P	2	2	2	–	–	–	–	2	2	2	–	2	2	–	–
	#6P	–	–	–	2	–	–	2	2	–	–	–	2	2	–	–
	#8P	2	2(N)	2(N)	–	2	–	–	2(N)	–	–	–	2(N)	2(N)	–	2
	PPB(#2P)	1	1	1	–	–	–	–	1	1	1	–	1	1	–	1
	PPB(#6P)	–	–	–	1	–	–	1	1	–	–	–	1	–	–	–
	PPB(#8P)	1	1(N)	1(N)	1	–	–	–	1	–	–	–	1	1	–	–
	PPB COMMON	1	1	1	1	1	1	2	1	1	–	1	1	–	1	
	SPARES	3	3	3	3	3	3	3	6/3	3	3	3	3	3	–	3
	PEU	–	–	–	3	–	–	–	–	–	–	–	–	3	3	–
	TOTAL NO. 14	19	19	19	19	10	16	22	47	16	16	6	16	18	3	7
NO. 10	SIGNAL COMMON	1	1	1	1	1	1	1	2	1	1	1	1	1	–	1
	120V LIGHTING	2	2(N)	2(N)	2	–	1/1	1/1	–	1/1	2	–	–	2	2	2
	TOTAL NO. 10	3	3	3	3	1	3	3	2	3	3	1	1	3	2	3
NO. 8	120V SIGNAL	–	–	–	–	–	–	–	2	–	–	–	2	–	2	–
	TOTAL NO. 8	–	–	–	–	–	–	–	2	–	–	–	2	–	2	–
NO. 6	120V LIGHTING (MT DIABLO)	–	–	–	–	–	–	–	–	–	–	–	2	–	2	–
	SPARE (MT DIABLO)	–	–	–	–	–	–	–	–	–	–	–	1	–	1	–
	TOTAL NO. 6	–	–	–	–	–	–	–	–	–	–	–	3	–	3	–
NO. 4	120V SIGNAL (MT DIABLO)	–	–	–	–	–	–	–	–	–	–	–	2	–	2	–
	TOTAL NO. 4	–	–	–	–	–	–	–	–	–	–	–	2	–	2	–
DETECTOR LEAD IN CABLE	111L	–	–	–	–	–	–	–	1	1	–	–	–	–	–	–
	111U	–	–	–	–	–	–	–	1(N)	1(N)	–	–	–	–	–	–
	212U, 212L, 213U	–	–	3(N)	–	–	3(N)	3(N)	3(N)	–	–	–	–	–	–	–
	214U	–	–	1(N)	–	–	1(N)	1(N)	1(N)	–	–	–	–	–	–	–
	213L, 214L, 2J9U	–	3(N)	3(N)	–	–	3(N)	3(N)	3(N)	–	–	–	–	–	–	–
	416U, 416L, 417U, 417L	–	–	–	–	–	–	–	4(N)	4(N)	4(N)	4(N)	–	–	–	–
	6J2U	–	–	–	–	–	–	–	1	1	–	–	–	–	–	–
	6J2L	–	–	–	–	–	–	–	1(N)	1(N)	–	–	–	–	–	–
	6J3L, 6J4U, 6J4L	–	–	–	–	–	–	–	3(N)	–	–	–	–	–	–	–
	8J6U, 8J6L, 8J7U, 8J7L	–	–	–	–	–	–	4(N)	4(N)	–	–	–	–	–	–	–
	TOTAL DLC	–	3	7	–	–	7	11	22	8	4	4	–	–	–	–
	SIC	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–
	CONDUIT SIZE (mm)	3"(N) (78)	2" (53)	2" (53)	3"(N) (78)	3"(N) (78)	2" (53)	2" (53) 3"(N) (78)	2-2" (2-53) 3"(N) (78)	2" (53)	2" (53)	2" (53)	2"(N) (53)	3" (78)	2" (53)	2" (53)	3"(N) (78)

(N) = NEW CONDUIT, CONDUCTOR OR CABLE
X/X = EX. CONDUCTOR / NEW CONDUCTOR
ALL NEW DLC AND CONDUCTOR CABLES SHALL BE INSTALLED IN THE NEW CONDUITS SHOWN.
RUNS 1, 4, 5, 11 AND 15 SHALL HAVE NEW CONDUCTORS.
ALL CONDUIT, CONDUCTORS AND CABLES ARE EXISTING UNLESS OTHERWISE NOTED.

TYPE III-A SERVICE (120/240 V) EQUIPMENT LEGEND

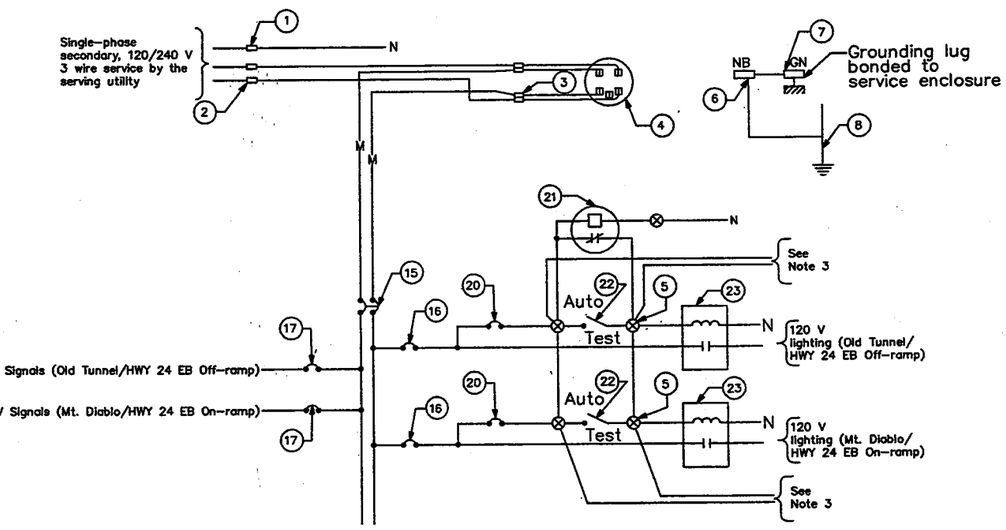
ITEM No.	COMPONENT	NAME PLATE DESCRIPTION	ITEM No.	COMPONENT	NAME PLATE DESCRIPTION
(1)	Neutral lug				
(2)	Landing lug		(15)	100A, 240V, 2P, CB	Main Breaker
(3)	Test bypass facility		(16)	30A, 120V, 1P, CB	Lighting
(4)	Meter socket and support		(17)	50A, 120V, 1P, CB	Signals
(5)	Terminal blocks				
(6)	Neutral bus				
(7)	Grounding bus		(20)	15A, 120V, IP, CB	Lighting Control
(8)	Grounding elelctrode		(21)	Photoelectric unit	
			(22)	15A, 1P, Test Switch	Lighting Test Switch
			(23)	60A, 1PNO Contactor	Lighting

NOTES: (FOR SERVICE EQUIPMENT)

1. Voltage ratings of service equipment shall conform to the service voltages indicated on the plans.
2. Unless otherwise indicated on the plans, all service equipment items shall be provided for each service equipment enclosure as shown.
3. Connect to remote test switch mounted on lighting standards, sign post or structure when required.
4. Item No. (1) and (6) shall be isolated from the service equipment enclosure.
5. Meter sockets shall be 5 clip type.
6. The landing lug shall be suitable for multiple conductors.
7. PG&E shall install Time of Use meter.

LEGEND

P	Pole		External conductor
CB	Circuit breaker		Conductor or bus
A	Ampere		Tie point
V	Volt		Contactor coil
M	Metered		
UM	Unmetered		Terminal block
SN	Solid neutral		Contactor, Contact NO Enclosure bond
NO	Normally open		
NC	Normally closed		Ground Contactor, Contact NC



120/240 V SERVICE WIRING DIAGRAM (TYPICAL)

SIGNAL AND LIGHTING SERVICE EQUIPMENT AND TYPICAL WIRING DIAGRAM - TYPE III-A SERIES

SEE ES-2C & ES-2D FOR OTHER NOTES.
NO SCALE

EQUIPMENT SCHEDULE

LOCATION	STANDARD TYPE	STANDARD SIGNAL MAST ARM	STANDARD LUMINAIRE MAST ARM	HPS LUMINAIRE WATTAGE	VEHICLE SIGNAL MOUNTING MAST ARM	VEHICLE SIGNAL MOUNTING POLE	PED SIGNAL MOUNTING	PED PUSH BUTTON** ø	PED PUSH BUTTON** ARROW	STREET NAME SIGN (S.N.S.) LEGEND	*SPECIAL REQUIREMENTS
(A)	26-3-70	45'	15'	200	MAT MAS	SV-2-T	SP-1-T	ø2 N	<- N		
(B)	1-B					TV-1-T					REMOVE EXISTING PEDESTRIAN PUSH BUTTON.
(C)	15TS N		15' N	200 N			SP-1-T N	ø2 N	<- N		
(D)	1-B N					SV-3-TB N	SP-1-T N	ø8 N	-> N		
(E)	26-4-129 N	40' N	15' N	200 N	MAS N MAS	SV-2-TD N	SP-1-T N	ø8 N	<- N		INSTALL R73-2(CA) SIGN ON SIGNAL MAST ARM
(F)	1-B N					TV-1-T N	SP-1-T N	ø6 N	-> N		INSTALL R10-11 SIGN ON SIGNAL POLE
(G)	1-B					TV-3-T	SP-1-T	ø6 N	-> N		POLE AND EQUIPMENT RELOCATED

ALL POLE AND SIGNAL EQUIPMENT ARE EXISTING UNLESS OTHERWISE NOTED
* OTHER REQUIREMENTS ARE COVERED BY NOTES, LEGEND, SPECIAL PROVISIONS AND CALTRANS STANDARD SPECIFICATIONS. FOR TYPE OF STANDARD, VEHICLE AND PEDESTRIAN MOUNTING, SEE CALTRANS STANDARD PLANS, DATED JULY 2004.
** PEDESTRIAN PUSH BUTTONS SHALL BE TYPE B PER CALTRANS STANDARD PLAN ES-5C.
N = NEW EQUIPMENT

CA: 1-800-227-2600
CALL BEFORE YOU DIG
USA
811
UNDERGROUND SERVICE ALERT
CA: 1-800-227-2600
CALL TWO WORKING DAYS BEFORE YOU DIG

Kimley-Horn and Associates, Inc.
2000 Crow Canyon Place, Suite 410
San Ramon, California 94583
Tel. No. (925) 543-0840
Fax No. (925) 543-0839

SUBMITTED JULY 18, 2005
PROJECT ENGINEER 7/18/05
REGISTERED PROFESSIONAL ENGINEER BRIAN E. SOWERS No. 60296 06/30/06 CIVIL STATE OF CALIFORNIA

APPROVED _____ 2005
CITY ENGINEER
RECORD DRAWING
(NO WARRANTY AS TO ACCURACY)
DATE ACCEPTED _____
PROJECT ENGINEER

LAFAYETTE

REVISIONS NO.	DESCRIPTION	BY	DATE

CITY OF LAFAYETTE

PLEASANT HILL ROAD MULTI-PURPOSE PATH IMPROVEMENTS

HWY. 24/OLD TUNNEL RD. CONDUCTOR AND EQUIPMENT SCHEDULES TS-2

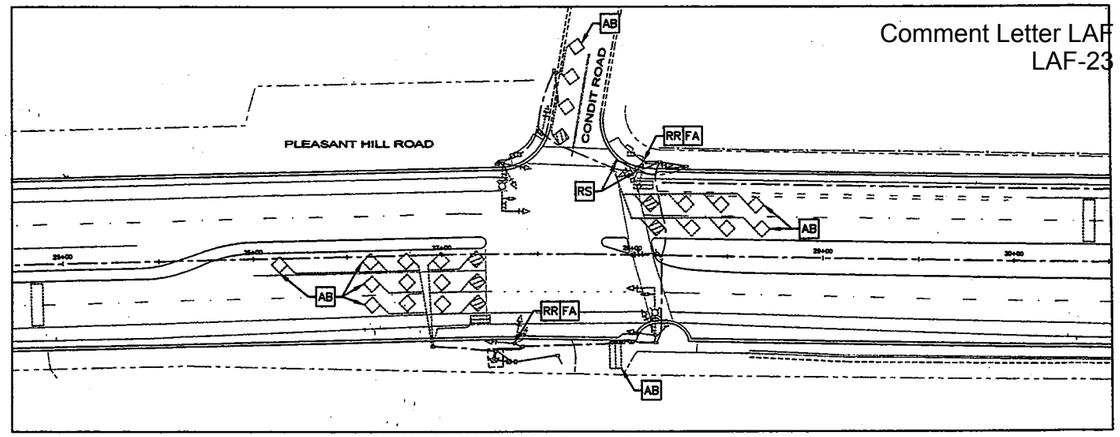
DESIGNED: DTB	CHECKED: BES	SCALE: NO SCALE	
DRAWN: LAM	DATE: 7/18/05		
ROLL FRAME	AEI NO: 2307	PROJECT NO.: 014-9654	SHEET 23 OF 38

NOTES:

1. ALL FOUNDATIONS TO BE ABANDONED SHALL BE REMOVED TO A DEPTH OF 24" BELOW FINISHED GRADE.
2. ALL PULL BOXES SHALL BE NO. 5 UNLESS OTHERWISE NOTED.
3. ALL SIGN CODES REFER TO THE 2003 EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES OR CALIFORNIA SUPPLEMENT, DATED MAY 2004, AS NOTED.

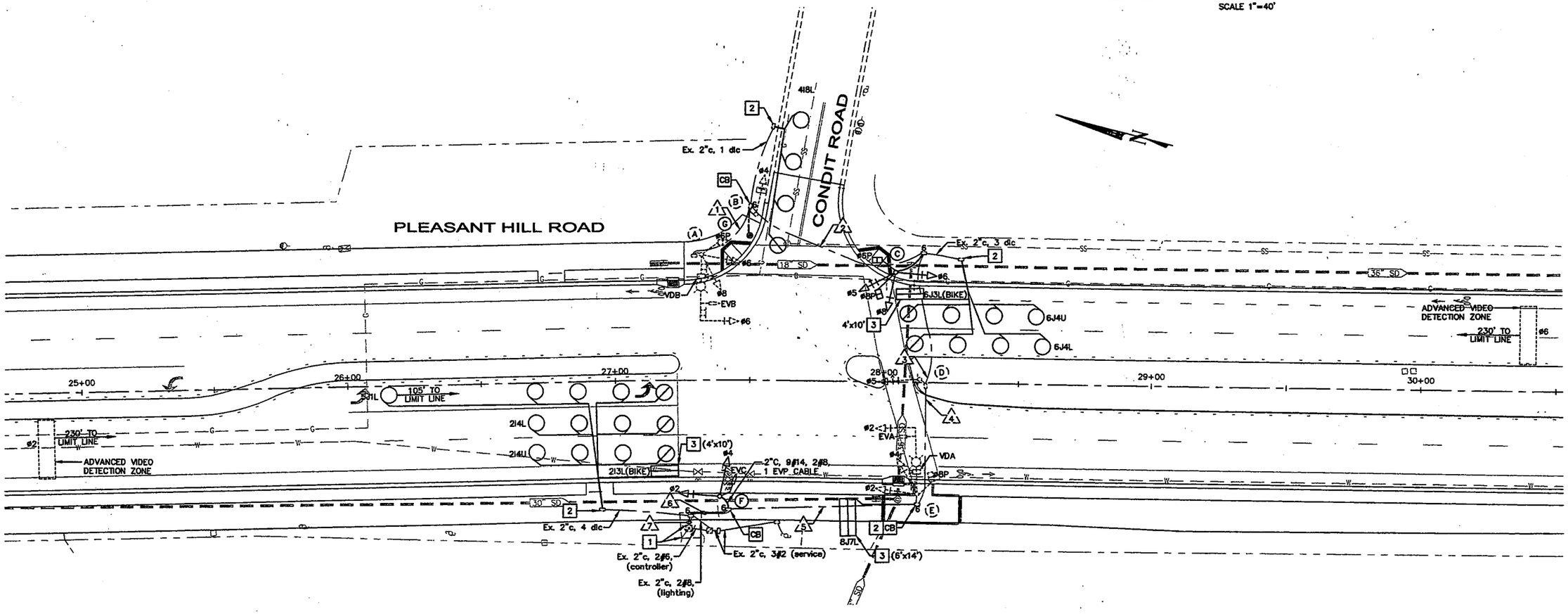
CONSTRUCTION NOTES

1. REMOVE EXISTING CONTROLLER PAD AND FOUNDATION AND INSTALL NEW PAD AND FOUNDATION (SEE CALTRANS STANDARD PLAN ES-3C FOR DETAIL) AT THE NEW PROPOSED GRADE. THE EXISTING CONTROLLER CABINET SHALL BE REMOVED FROM THE EXISTING FOUNDATION, PROTECTING THE EXISTING WIRING AND CABLES, AND REINSTALLED ON THE NEW FOUNDATION. NEW CONDUIT SHALL BE INSTALLED INTO THE NEW FOUNDATION AS NECESSARY FOR FINISHED GRADE.
2. SPLICE NEW DETECTOR LOOP WIRES TO EXISTING DLC IN PULL BOX.
3. INSTALL TYPE C LOOP DETECTOR (SEE CALTRANS STANDARD PLAN ES-5B FOR DETAIL).

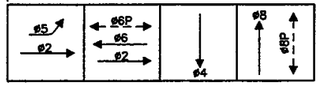


EXISTING SIGNAL EQUIPMENT

SCALE 1"=40'



STEADY DEMAND SEQUENCE



EXISTING PHASE DIAGRAM

EVA = #2 & #5 VDA = #2
EVB = #6 VDB = #6
EVC = #4

GRAPHIC SCALE

20 0 10 20 40

(IN FEET)
1 inch = 20 ft.

CA: 1-800-227-2600
CALL BEFORE YOU DIG
UNDERGROUND SERVICE ALERT
CA: 1-800-227-2600
CALL TWO WORKING DAYS BEFORE YOU DIG

Kimley-Horn and Associates, Inc.
2000 Crow Canyon Place, Suite 410
San Ramon, California 94583
Tel. No. (925) 543-0840
Fax No. (925) 543-0839

SUBMITTED JULY 18, 2005
PROJECT ENGINEER

REGISTERED PROFESSIONAL ENGINEER BRYAN E. SOVERN No. 60296 06/30/06 CIVIL STATE OF CALIFORNIA

APPROVED _____ 2005
CITY ENGINEER

RECORD DRAWING
(NO WARRANTY AS TO ACCURACY)
DATE ACCEPTED _____
PROJECT ENGINEER

LAFAYETTE

CITY OF LAFAYETTE

PLEASANT HILL ROAD MULTI-PURPOSE PATH IMPROVEMENTS

CONDIT ROAD SIGNAL MODIFICATION PLAN TS-3

REVISIONS NO.	DESCRIPTION	BY	DATE

DESIGNED: DTB | CHECKED: BES | SCALE: 1" = 20'
DRAWN: LAM | DATE: 7/18/05
ROLL FRAME | PROJECT NO.: 014-9654 | SHEET 24 OF 38
AEI NO: 2307

CONDUCTOR SCHEDULE

AWG OR CABLE	CONDUCTOR DESIGNATION	NUMBER OF CONDUCTORS RUN NUMBER /1	/2	/3	/4	/5	/6	/7
NO. 14	ø2	–	–	–	–	3	6	6
	ø4	–	3	3	3	3	6	6
	ø5	–	–	3	3	3	3	3
	ø6	3	3	3	3	3	3	3
	ø8	3	3	3	3	3	3	3
	ø6P	2	2	2	2	2	2	2
	ø8P	–	–	2	2	2	2	2
	PPB(ø6P)	–	1	1	1	1	1	1
	PPB(ø8P)	–	–	1	1	1	1	1
	PPB COMMON	–	1	1	1	1	1	1
	SPARES	3	3	3	3	3	6	6
	TOTAL NO. 14	11	13	19	19	22	31	31
NO. 8	SIGNAL COMMON	1	1	1	1	1	1	1
	STREET LIGHTING (240V)	2	2	2	2	2	2	–
	BOND (BARE)	1	1	1	1	1	1	1
	TOTAL NO. 8	4	4	4	4	4	4	2
DETECTOR LEAD IN CABLE	2I4L, 2I4U, 2I3L(BIKE)	–	–	–	–	–	–	3
	4I8L	–	1	1	1	1	1	1
	5J1L	–	–	–	–	–	–	1
	6J4L, 6J4U, 6J3L(BIKE)	–	–	3	3	3	3	3
	8J7L	–	–	–	–	1	1	1
	TOTAL DLC	–	1	4	4	5	5	9
EMERGENCY VEHICLE PREEMPTION (OPTICOM) CABLE	CHANNEL A	–	–	–	–	1	1	1
	CHANNEL B	1	1	1	1	1	1	1
	CHANNEL C	–	–	–	–	–	1(N)	1(N)
	TOTAL EVP CABLE	1	1	1	1	2	3	3
VIDEO DETECTOR CABLES	VDA	–	–	–	–	1	1	1
	VDB	1	1	1	1	1	1	1
	TOTAL VIDEO CABLE	1	1	1	1	2	2	2
	CONDUIT SIZE	3"	3"	3"	3"	3"	2-3"	2-3"

ALL CONDUIT, CONDUCTORS AND CABLES ARE EXISTING UNLESS OTHERWISE NOTED.
(N) = NEW CONDUCTOR OR CABLE

EXISTING EVP AND VIDEO DETECTOR CABLES TO BE REMOVED SHALL BECOME PROPERTY OF THE CONTRACTOR.

EQUIPMENT SCHEDULE

LOCATION	STANDARD: TYPE	SIGNAL MAST ARM	LUMINAIRE MAST ARM	HPS LUMINAIRE WATTAGE	VEHICLE SIGNAL MOUNTING: MAST ARM	POLE	PED SIGNAL MOUNTING	PED PUSH BUTTON: ø	ARROW	STREET NAME SIGN (S.N.S.) LEGEND	*SPECIAL REQUIREMENTS
(A)	19-3-129	30'	15'	200	MAS	SV-2-TD	SP-1-T			Condit Rd.	
(B)	1-B					TV-1-T					
(C)	1-B					TV-3-T	SP-2-T	ø4 ø6	–> –>		INSTALL RELOCATED POLE AND EQUIPMENT.
(D)	1-B (14')					TV-1-T		ø4	<–>		
(E)	19A-3-129	25'	15'	200		SV-2-TD	SP-1-T	ø4	–>	Condit Rd.	INSTALL RELOCATED POLE AND EQUIPMENT.
(F)	1-B (14')					TV-1-T SV-1-T				Pleasant Hill Rd.	INSTALL RELOCATED POLE AND EQUIPMENT.
(G)	PPB POST N							ø6 N	–>		

ALL POLE AND SIGNAL EQUIPMENT IS EXISTING UNLESS OTHERWISE NOTED

* OTHER REQUIREMENTS ARE COVERED BY NOTES, LEGEND, SPECIAL PROVISIONS AND CALTRANS STANDARD SPECIFICATIONS. FOR TYPE OF STANDARD, VEHICLE AND PEDESTRIAN MOUNTING, SEE CALTRANS STANDARD PLANS.

N = NEW EQUIPMENT

CA: 1-800-227-2600
CALL BEFORE YOU DIG
USA
UNDERGROUND SERVICE ALERT
CA: 1-800-227-2600
CALL TWO WORKING DAYS BEFORE YOU DIG

Kimley-Horn and Associates, Inc.
2000 Crow Canyon Place, Suite 410
San Ramon, California 94583
Tel. No. (925) 543-0640
Fax No. (925) 543-0839

REGISTERED PROFESSIONAL ENGINEER BRIAN E. SOWERS No. 50296 09/30/06 CIVIL STATE OF CALIFORNIA

SUBMITTED JULY 15, 2005
PROJECT ENGINEER 7/19/05

APPROVED _____ 2005
CITY ENGINEER

RECORD DRAWING
(NO WARRANTY AS TO ACCURACY)
DATE ACCEPTED _____
PROJECT ENGINEER

LAFAYETTE

REVISIONS NO.	DESCRIPTION	BY	DATE

CITY OF LAFAYETTE

PLEASANT HILL ROAD MULTI-PURPOSE PATH IMPROVEMENTS

CONDIT ROAD CONDUCTOR AND EQUIPMENT SCHEDULES
TS-4

DESIGNED: DTB	CHECKED: BES	SCALE: NO SCALE	
DRAWN: LAM	DATE: 7/18/05		
ROLL FRAME	PROJECT NO.: 014-9654	SHEET 25 OF 38	
AEI NO: 2307			

HWY 24 ON RAMP

OLD TUNNEL ROAD

MATCH LINE SEE SHEET 27

MT DIABLO BOULEVARD

EXISTING 10"SD ON-RAMP BASELINE 10+00+00.00

13+43.41PLEASANT HILL RD =50+00.00 OFF RAMP

HWY 24 OFF RAMP

REPLACE EXISTING 2" BACKFLOW WITH A NEW 2" BACKFLOW AT SAME LOCATION. SET DISCHARGE PRESSURE AT PRESSURE REDUCING VALVE TO 65 PSI UNDER A MAXIMUM FLOW CONDITION.

EXISTING 1.5" WATER METER WITH 1.5" SERVICE LINE FOR IRRIGATION. MAXIMUM IRRIGATION DEMAND: 50 GPM AT 117 PSI STATIC PRESSURE AT WATER METER LOCATION.

10+44.58 BC

11+00

12+00

13+00

14+00

8"SL SEE DETAIL 12 & 13 ON PAGE 31

2"

RECONNECT NEW 2" PVC MAIN LINE TO EXISTING 2" PVC MAIN LINE AT THIS LOCATION.

RELOCATE EXISTING IRRIGATION SYSTEM FOR FULL COVERAGE.

MAIN LINE LOCATION IS SCHEMATIC. COORDINATE EXACT LOCATION WITH THE ENGINEER IN THE FIELD.

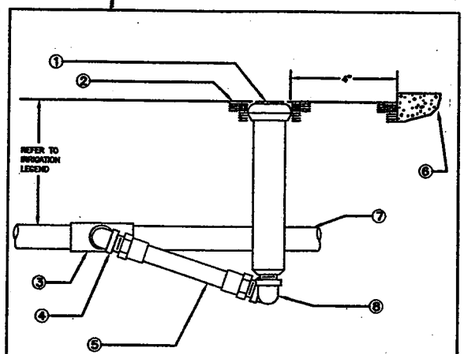
PLEASANT HILL ROAD

RELOCATE EXISTING IRRIGATION SYSTEM FOR FULL COVERAGE.

EXISTING IMPACT SPRINKLERS

EXISTING FENCE

CALTRANS ROW



① 12" POP-UP SHRUB ROTARY SPRINKLER(3/4")
② FINISH GRADE
③ UPC APPROVED SCHEDULE 40 PVC TEE OR ELBOW
④ 3/4" SCHEDULE 40 PVC STREET ELL
⑤ 3/4" KING BROS. FLEX RISER MODEL FR-750-6 OR EQUAL
⑥ WALL, WALK, CURB OR BUILDING
⑦ PVC LATERAL LINE
⑧ MARLEX 90° STREET ELL (2 TOTAL)

1 / I-1 — 12" POP-UP SHRUB ROTARY SPRINKLER RISER
Scale: NONE
Det: 12POP-UP1

CONTRACTOR TO VERIFY EXISTING UTILITY LOCATIONS PRIOR TO ANY EXCAVATION CALL USA AT (800) 227-2600

Irrigation Consultant:
Russell D. Mitchell Associates, Inc.
2780 Camino Diablo
Walnut Creek, CA 94597
Phone (925) 930-2665
Fax (925) 932-5671
Email: RMA@RMAIRRIGATION.COM

SUBMITTED JULY 19 2005
PROJECT LANDSCAPE ARCHITECT

APPROVED _____ 2005
CITY ENGINEER
RECORD DRAWING
(NO WARRANTY AS TO ACCURACY)
DATE ACCEPTED _____
PROJECT ENGINEER

1-20-06
2-16-05

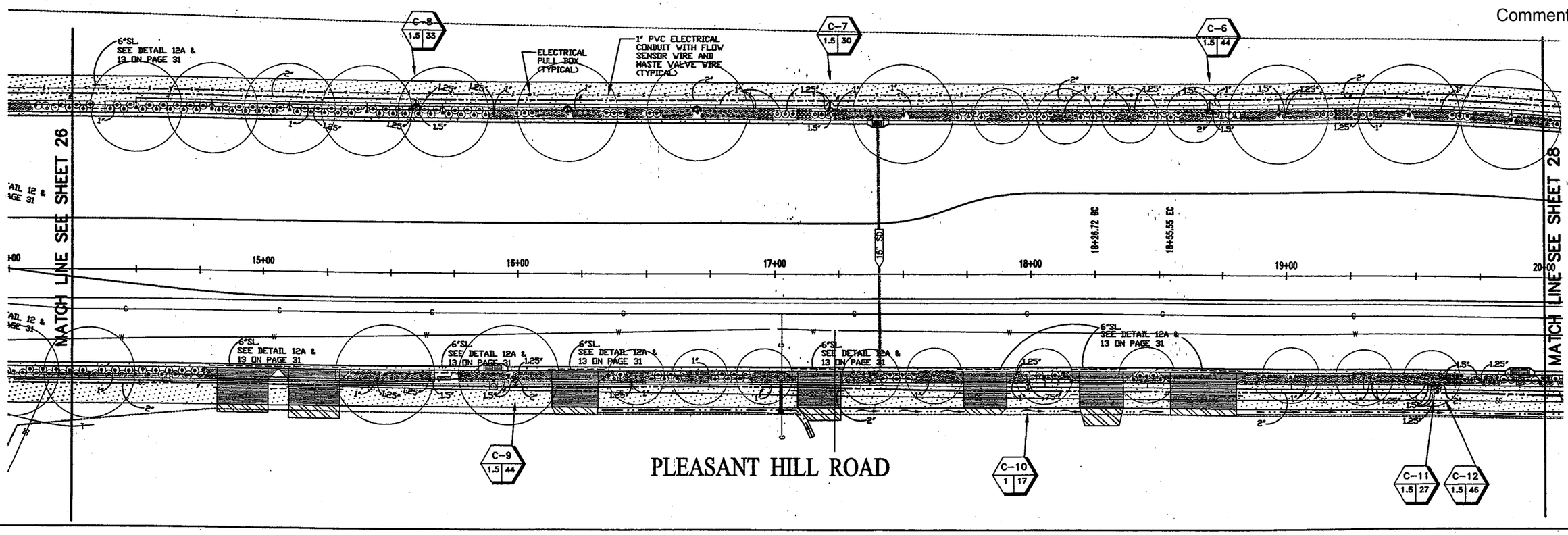
CITY OF LAFAYETTE

PLEASANT HILL ROAD
MULTI-PURPOSE PATH IMPROVEMENTS

IRRIGATION
STA 10+00 TO STA 14+25

REVISIONS NO.	DESCRIPTION	BY	DATE

DESIGNED: JC | CHECKED: CM | SCALE: 1"=20'
DRAWN: JC | DATE: JULY 19, 2005
ROLL FRAME | AEI NO: 2307 | PROJECT NO.: 014-9654
SHEET 26 OF 38



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EXISTING UTILITY LOCATIONS
PRIOR TO ANY EXCAVATION
CALL USA AT (800) 227-2600

Irrigation Consultant:
Russell D. Mitchell Associates, Inc.
2760 Camino Diablo
Walnut Creek, CA 94597
Phone (925) 930-3685
Fax (925) 932-5671
Email: RMA@RMAIRRIGATION.COM

SUBMITTED JULY 19 2005
PROJECT LANDSCAPE ARCHITECT

APPROVED _____ 2005
CITY ENGINEER

RECORD DRAWING
(NO WARRANTY AS TO ACCURACY)
DATE ACCEPTED _____
PROJECT ENGINEER

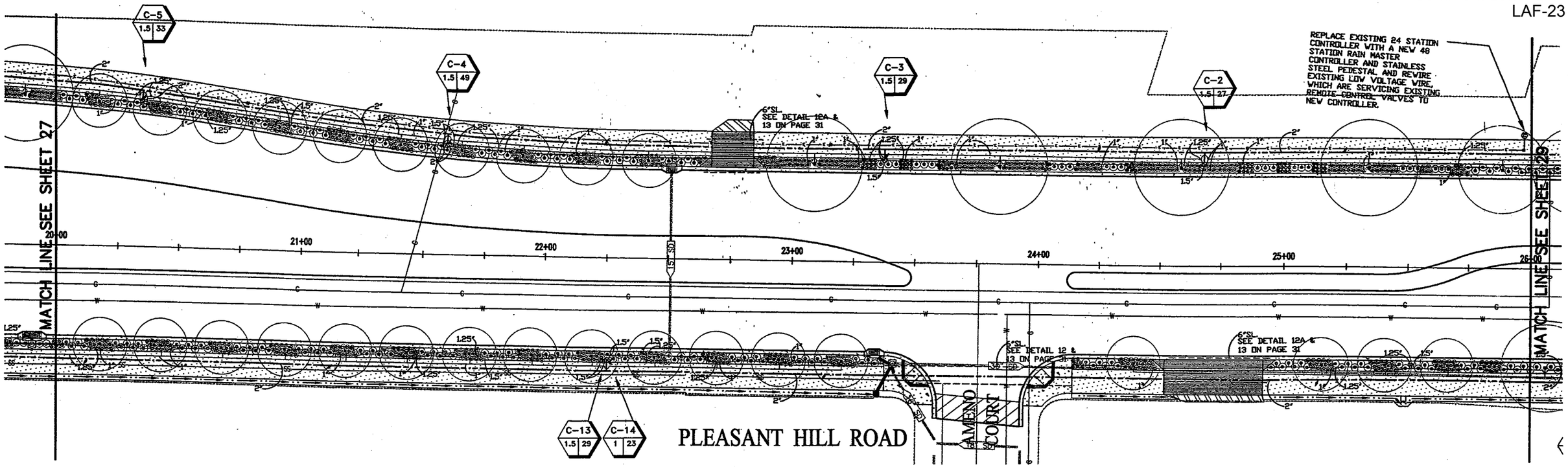
REVISIONS			
NO.	DESCRIPTION	BY	DATE

CITY OF LAFAYETTE

PLEASANT HILL ROAD
MULTI-PURPOSE PATH IMPROVEMENTS

IRRIGATION
STA 14+25 TO STA 26+00

DESIGNED: JC	CHECKED: CM	SCALE: 1"=20'
DRAWN: JC	DATE: JULY 19, 2005	
ROLL FRAME	PROJECT NO.: 014-9654	SHEET 27 OF 38
AEI NO: 2307		



CONTRACTOR TO VERIFY EXISTING UTILITY LOCATIONS PRIOR TO ANY EXCAVATION CALL USA AT (800) 227-2600

Irrigation Consultant:
Russell D. Mitchell Associates, Inc.
2760 Camino Diablo
Walnut Creek, CA 94597
Phone (925) 930-3985 Email: RMA@RMAIRRIGATION.COM
Fax (925) 932-5671

REGISTERED LANDSCAPE ARCHITECT
1-30-06
2-8-05
RENEWAL
STATE OF CALIFORNIA

SUBMITTED JULY 19 2005
PROJECT LANDSCAPE ARCHITECT

APPROVED _____ 2005
CITY ENGINEER

RECORD DRAWING
(NO WARRANTY AS TO ACCURACY)
DATE ACCEPTED _____
PROJECT ENGINEER

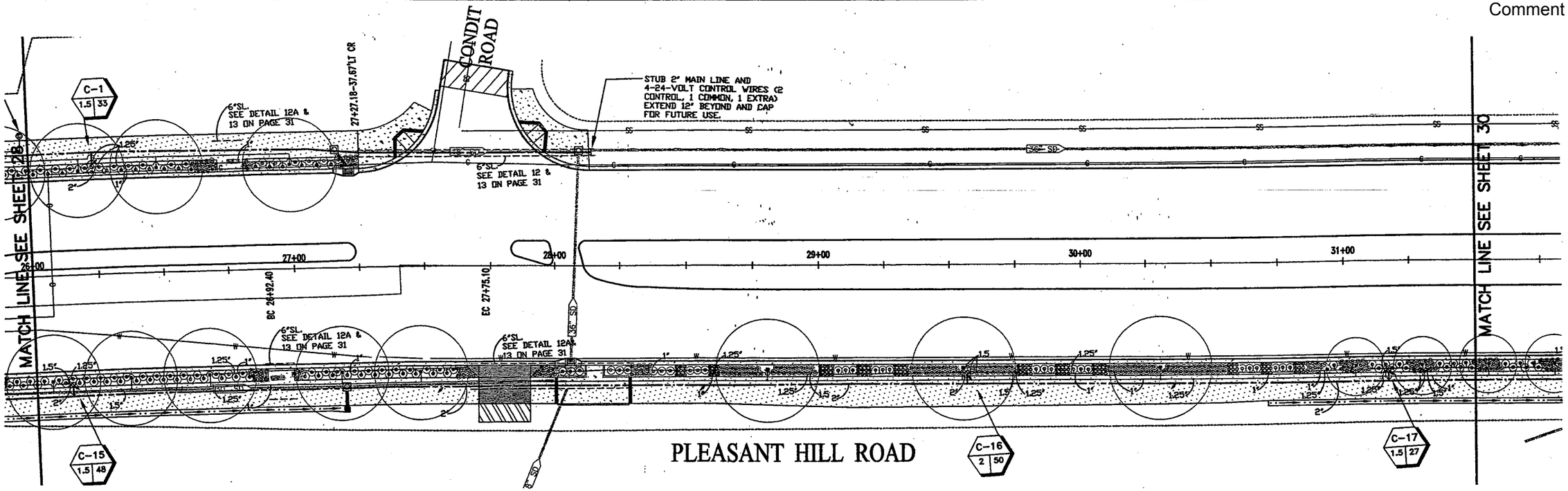
REVISIONS NO.	DESCRIPTION	BY	DATE

CITY OF LAFAYETTE

PLEASANT HILL ROAD
MULTI-PURPOSE PATH IMPROVEMENTS

IRRIGATION
STA 20+00 TO STA 26+00

DESIGNED: JC	CHECKED: CM	SCALE: 1"=20'
DRAWN: JC	DATE: JULY 19, 2005	
ROLL FRAME	PROJECT NO.: 014-9654	SHEET 28 OF 38
AEI NO: 2307		



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Irrigation Consultant:
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2760 Camino Diablo
Walnut Creek, CA 94597
Phone (925) 935-3965
Fax (925) 932-5671
Email: RMA@RDMIRRIGATION.COM

SUBMITTED JULY 19 *2005*

PROJECT LANDSCAPE ARCHITECT

1-30-06
5-18-05

APPROVED _____ 2005

CITY ENGINEER

RECORD DRAWING
(NO WARRANTY AS TO ACCURACY)

DATE ACCEPTED _____

PROJECT ENGINEER

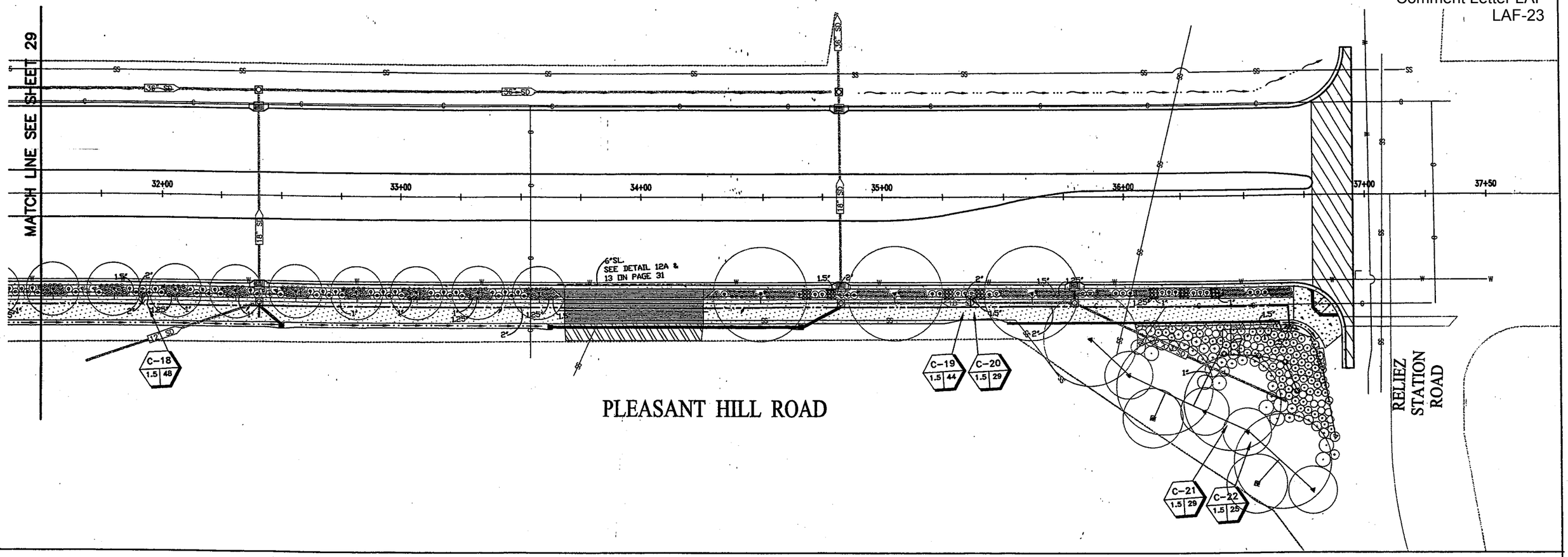
REVISIONS NO.	DESCRIPTION	BY	DATE

CITY OF LAFAYETTE

PLEASANT HILL ROAD
MULTI-PURPOSE PATH IMPROVEMENTS

IRRIGATION
STA 26+00 TO STA 31+50

DESIGNED: JC	CHECKED: CM	SCALE: 1"=20'
DRAWN: JC	DATE: JULY 19, 2005	
ROLL FRAME	PROJECT NO.: 014-9654	SHEET 29 OF 38
AEI NO: 2307		



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PRIOR TO ANY EXCAVATION
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2780 Camino Diablo
Walnut Creek, CA 94597
Phone (925) 839-3985
Fax (925) 932-5671
Email: RMA@RMAIRRIGATION.COM

SUBMITTED JULY 19 2005
PROJECT LANDSCAPE ARCHITECT

1-30-06
7-8-05

APPROVED _____ 2005
CITY ENGINEER
RECORD DRAWING
(NO WARRANTY AS TO ACCURACY)
DATE ACCEPTED _____
PROJECT ENGINEER

REVISIONS NO.	DESCRIPTION	BY	DATE

CITY OF LAFAYETTE

PLEASANT HILL ROAD
MULTI-PURPOSE PATH IMPROVEMENTS

IRRIGATION
STA 31+50 TO STA 37+00

DESIGNED: JC	CHECKED: CM	SCALE: 1"=20'	
DRAWN: JC	DATE: JULY 19, 2005		
ROLL FRAME	PROJECT NO.: 014-9654	SHEET 30 OF 38	
AEI NO: 2307			

IRRIGATION NOTES

1. THESE IRRIGATION DRAWINGS ARE DIAGRAMMATIC AND INDICATIVE OF THE WORK TO BE INSTALLED. ALL PIPING, VALVES, AND OTHER IRRIGATION COMPONENTS MAY BE SHOWN WITHIN PAVED AREAS FOR GRAPHIC CLARITY ONLY AND ARE TO BE INSTALLED WITHIN PLANTING AREAS. DUE TO THE SCALE OF THE DRAWINGS, IT IS NOT POSSIBLE TO INDICATE ALL OFFSETS, FITTINGS, SLEEVES, CONDUIT, AND OTHER ITEMS WHICH MAY BE REQUIRED. INVESTIGATE THE STRUCTURAL AND FINISHED CONDITION AFFECTING THE CONTRACT WORK INCLUDING OBSTRUCTIONS, GRADE DIFFERENCES OR AREA DIMENSIONAL DIFFERENCES. IN THE EVENT OF FIELD DISCREPANCY WITH CONTRACT DOCUMENTS, PLAN THE INSTALLATION WORK ACCORDINGLY BY NOTIFICATION AND APPROVAL OF THE OWNER'S AUTHORIZED REPRESENTATIVE AND ACCORDING TO THE CONTRACT SPECIFICATIONS. NOTIFY AND COORDINATE IRRIGATION CONTRACT WORK WITH APPLICABLE CONTRACTORS FOR THE LOCATION AND INSTALLATION OF PIPE, CONDUIT OR SLEEVES THROUGH OR UNDER WALLS, ROADWAYS, PAVING AND STRUCTURES BEFORE CONSTRUCTION. IN THE EVENT THESE NOTIFICATIONS ARE NOT PERFORMED, THE CONTRACTOR ASSUMES FULL RESPONSIBILITY FOR REQUIRED REVISIONS.

2. THE INTENT OF THIS IRRIGATION SYSTEM IS TO PROVIDE THE MINIMUM AMOUNT OF WATER REQUIRED TO SUSTAIN GOOD PLANT HEALTH.

3. IT IS THE RESPONSIBILITY OF THE LANDSCAPE MAINTENANCE CONTRACTOR TO PROGRAM THE IRRIGATION CONTROLLER TO PROVIDE THE MINIMUM AMOUNT OF WATER NEEDED TO SUSTAIN GOOD PLANT HEALTH. THIS INCLUDES MAKING ADJUSTMENTS TO THE PROGRAM FOR SEASONAL WEATHER CHANGES, PLANT MATERIAL, WATER REQUIREMENTS, MOUNDS AND SLOPES, SUN, SHADE AND WIND EXPOSURES.

4. IT IS THE RESPONSIBILITY OF A LICENSED ELECTRICAL CONTRACTOR TO PROVIDE 120 VOLT A.C. (2.5 AMP DEMAND PER CONTROLLER) ELECTRICAL SERVICE TO THE IRRIGATION CONTROLLER LOCATIONS(S). IT IS THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO COORDINATE THE ELECTRICAL SERVICE INSTALLATION AND TO MAKE FINAL CONNECTION FROM ELECTRICAL SERVICE STUB-OUT TO CONTROLLER(S). PROVIDE PROPER GROUNDING PER CONTROLLER MANUFACTURER'S INSTRUCTIONS AND IN ACCORDANCE WITH LOCAL CODES.

5. PROVIDE EACH CONTROLLER WITH ITS OWN GROUND ROD. SEPARATE THE GROUND RODS BY A MINIMUM OF EIGHT FEET. THE GROUND ROD SHALL BE AN EIGHT FOOT LONG BY 5/8" DIAMETER U.L. APPROVED COPPER CLAD ROD. INSTALL NO MORE THAN 6" OF THE GROUND ROD ABOVE FINISH GRADE. CONNECT #6 GAUGE WIRE WITH A U.L. APPROVED GROUND ROD CLAMP TO ROD AND BACK TO GROUND SCREW AT BASE OF CONTROLLER WITH APPROPRIATE CONNECTOR. MAKE THIS WIRE AS SHORT AS POSSIBLE, AVOIDING KINKS OR BENDING.

6. PROVIDE EACH IRRIGATION CONTROLLER WITH ITS OWN INDEPENDENT LOW VOLTAGE COMMON GROUND WIRE.

7. SCHEDULE A MEETING WHICH INCLUDES REPRESENTATIVES OF THE IRRIGATION CONTROLLER MANUFACTURER, THE MAINTENANCE CONTRACTOR, THE OWNER AND THE IRRIGATION CONTRACTOR AT THE SITE FOR INSTRUCTION ON THE PROPER PROGRAMMING AND OPERATION OF THE IRRIGATION CONTROLLER.

8. IRRIGATION CONTROL WIRES: SOLID COPPER WITH U.L. APPROVAL FOR DIRECT BURIAL IN GROUND. CONTROL WIRE SERVICING REMOTE CONTROL VALVES: SIZE #14-1 WIRE WITH A UNIQUE COLOR INSULATING JACKET FOR EACH CONTROLLER. COMMON GROUND WIRE: SIZE #12-1 WIRE WITH A WHITE INSULATING JACKET AND A STRIPE OF COLOR WHICH MATCH'S THE CONTROL WIRE COLOR CHOICE FOR SPECIFIC CONTROLLER. SPARE WIRE: #14-1 WIRE WITH BLACK INSULATION JACKET. SPLICES SHALL BE MADE WITH 3M-DBY SEAL PACKS OR APPROVED EQUAL.

9. INSTALL A MINIMUM OF ONE SPARE CONTROL WIRE OF A DIFFERENT COLOR ALONG THE ENTIRE MAIN LINE. QUANTITY OF SPARE WIRES SHALL EQUAL THE QUANTITY OF UNUSED STATION AT THE CONTROLLER. LOOP 36" EXCESS WIRE INTO EACH SINGLE VALVE BOX AND INTO ONE VALVE BOX IN EACH GROUP OF VALVES.

10. SPLICING OF LOW VOLTAGE WIRES IS PERMITTED IN VALVE BOXES ONLY. LEAVE A 36" LONG, 1" DIAMETER COIL OF EXCESS WIRE AT EACH SPLICE AND A 36" LONG EXPANSION LOOP EVERY 100 FEET ALONG WIRE RUN. TAPE WIRES TOGETHER EVERY TEN FEET. DO NOT TAPE WIRES TOGETHER WHERE CONTAINED WITHIN SLEEVING OR CONDUIT.

11. INSTALL GREEN PLASTIC VALVE BOXES WITH BOLT DOWN, NON HINGED COVER MARKED "IRRIGATION". BOX BODY SHALL HAVE KNOCK OUTS. ACCEPTABLE VALVE BOX MANUFACTURER'S INCLUDE, CARSON OR APPROVED EQUAL.

12. INSTALL REMOTE CONTROL VALVE BOXES 12" FROM WALK, CURB, BUILDING OR LANDSCAPE FEATURE. AT MULTIPLE VALVE BOX GROUPS, INSTALL EACH BOX AN EQUAL DISTANCE FROM THE WALK, CURB, BUILDING OR LANDSCAPE FEATURE AND PROVIDE 12" BETWEEN BOX TOPS. ALIGN THE SHORT SIDE OF RECTANGULAR VALVE BOXES PARALLEL TO WALK, CURB, BUILDING OR LANDSCAPE FEATURE.

13. VALVE LOCATIONS SHOWN ARE DIAGRAMMATIC. INSTALL IN GROUND COVER/SHRUB AREAS (NOT IN LAWN AREA).

14. THE REMOTE CONTROL VALVE SPECIFIED ON THE DRAWINGS IS A PRESSURE REDUCING TYPE. SET THE DISCHARGE PRESSURE AS FOLLOWS:
    1. SPRAY HEADS=40 PSI
    2. BUBBLERS=30 PSI

15. FLUSH AND ADJUST IRRIGATION OUTLETS AND NOZZLES FOR OPTIMUM PERFORMANCE AND TO PREVENT OVER SPRAY ONTO WALKS, ROADWAYS, AND/OR BUILDINGS. SELECT THE BEST DEGREE OF ARC AND RADIUS TO FIT THE EXISTING SITE CONDITIONS AND THROTTLE THE FLOW CONTROL AT EACH VALVE TO OBTAIN THE OPTIMUM OPERATING PRESSURE FOR EACH CONTROL ZONE.

16. SET SPRINKLER HEADS PERPENDICULAR TO FINISH GRADE.

17. LOCATE BUBBLERS ON UPHILL SIDE OF PLANT OR TREE.

18. INSTALL A HUNTER HCV SERIES, KBI CV-SERIES, OR APPROVED EQUAL SPRING LOADED CHECK VALVE IN SPRINKLER RISER ASSEMBLIES WHERE LOW OUTLET DRAINAGE WILL CAUSE EROSION AND/OR EXCESS WATER.

19. NOTIFY LOCAL JURISDICTIONS FOR INSPECTION AND TESTING OF INSTALLED BACKFLOW PREVENTION DEVICE.

20. THE SPRINKLER SYSTEM DESIGN IS BASED ON THE MINIMUM OPERATING PRESSURE SHOWN ON THE IRRIGATION DRAWINGS. VERIFY WATER PRESSURE PRIOR TO CONSTRUCTION. REPORT ANY DIFFERENCE BETWEEN THE WATER PRESSURE INDICATED ON THE DRAWINGS AND THE ACTUAL PRESSURE READING AT THE IRRIGATION POINT OF CONNECTION TO THE OWNER'S AUTHORIZED REPRESENTATIVE.

21. PIPE SIZING SHOWN ON THE DRAWINGS IS TYPICAL. AS CHANGES IN LAYOUT OCCUR DURING CONSTRUCTION THE SIZE MAY NEED TO BE ADJUSTED ACCORDINGLY.

22. PIPE THREAD SEALANT COMPOUND SHALL BE PERMATEX 51 OR RECTOR SEAL T+2.

23. A. ONE BUBBLER SYMBOL IS SHOWN AT TREES FOR GRAPHIC CLARITY ONLY. INSTALL TWO BUBBLERS AT EACH TREE AS DETAILED.

    B. IRRIGATION EQUIPMENT MAY BE SHOWN WITHIN HARDSCAPE FOR GRAPHIC CLARITY ONLY. INSTALL ALL IRRIGATION EQUIPMENT WITHIN PLANTED AREAS. IRRIGATION PIPE AND WIRE CROSSING BENEATH HARDSCAPE SURFACES SHALL BE CONTAINED WITHIN SLEEVING OR SCHEDULE 40 PVC CONDUIT. SLEEVING SIZE SHALL BE A MINIMUM OF TWO TIMES THE AGGREGATE DIAMETER OF ALL PIPES CONTAINED WITHIN SLEEVE. PROVIDE VERTICAL SWEEP FOR ALL ELECTRICAL CONDUIT ON EACH SIDE OF HARDSCAPE AND TERMINATE ENDS AT 12" MINIMUM DEPTH AND 12" FROM HARDSCAPE SURFACE.

    C. UNSIZED LATERAL LINE PIPING LOCATED DOWN STREAM OF 1" PIPING SHALL BE 3/4" IN SIZE (TYPICAL).

    D. SIZING OF LATERAL PIPE SHALL BE AS FOLLOWS:

.75"	0-6 GPM	1.25"	13-20 GPM	2"	33-50 GPM
1"	7-12 GPM	1.5"	21-32 GPM		

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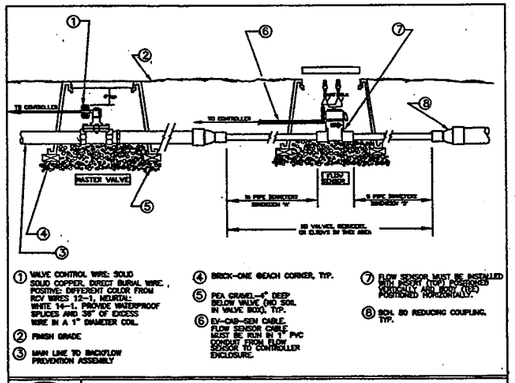
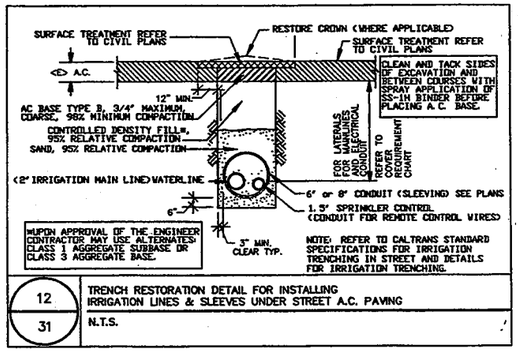


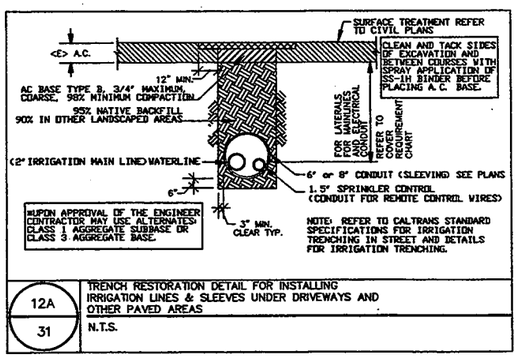
11/31 MASTER VALVE/FLOW SENSOR

Det: Master-flow sensor
Scale: NONE



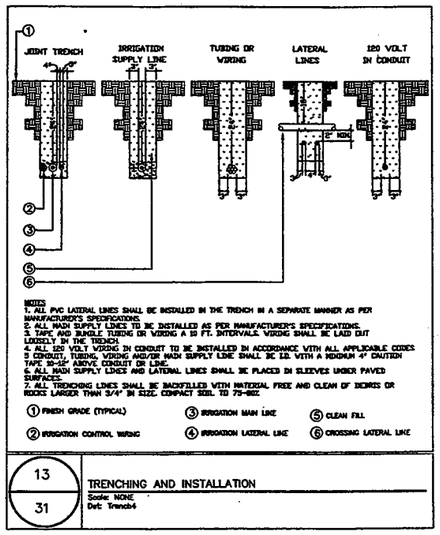
12/31 TRENCH RESTORATION DETAIL FOR INSTALLING IRRIGATION LINES & SLEEVES UNDER STREET A.C. PAVING

N.T.S.



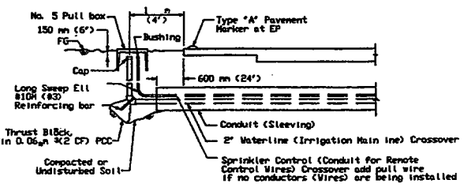
12A/31 TRENCH RESTORATION DETAIL FOR INSTALLING IRRIGATION LINES & SLEEVES UNDER DRIVEWAYS AND OTHER PAVED AREAS

N.T.S.



13/31 TRENCHING AND INSTALLATION

Scale: NONE
Det: Trench4



IRRIGATION CROSSOVER

IRRIGATION LEGEND

SYMBOL	NUMBER	DESCRIPTION	NOZZLE GPM	OPERATING PSI	OPERATING RADIUS (FEET)
⊙ ▽ ▽	570Z-12P-PRX-COM/ 15-PC F,H,Q	TORO POP-UP SPRAY SPRINKLER (SHRUB)	3,1.5,0.8	30	12-15
⊙ ▽ ▽	570Z-12P-PRX-COM/ 12-PC F,H,Q	TORO POP-UP SPRAY SPRINKLER (SHRUB)	2,1,0.5	30	10-12
⊙ ▽ ▽	570Z-12P-PRX-COM/ 10-PC F,H,Q	TORO POP-UP SPRAY SPRINKLER (SHRUB)	1.5,0.8,0.4	30	8-10
⊙ ▽ ▽	570Z-12P-PRX-COM/ 8-PC F,H,Q	TORO POP-UP SPRAY SPRINKLER (SHRUB)	1,0.5,0.25	30	6-8
▽ ▽	570Z-12P-PRX-COM/ 5-PC H,Q	TORO POP-UP SPRAY SPRINKLER (SHRUB)	0.2,0.1	30	4-5
⊙	FB-25-PC	TORO BUBBLER (SHRUB)	0.25	30	TRICKLE
■	FB-50-PC	TORO BUBBLER (TREE) 2 PER TREE	0.5	30	TRICKLE
⊛	100P-OMR-100	IRRITROL REMOTE CONTROL VALVE W/PRESURE REGULATING VALVE			
▬	33 DNP	RAIN BIRD QUICK COUPLING VALVE			
⋈	T113-IRR	NIBCO GATE VALVE (LINE SIZE)			
◪	REFER TO SATELLITE MODEL NUMBER	UGT FLOW SENSOR ASSEMBLY/MASTER VALVE, NORMALLY OPEN (1-1/2" UNLESS OTHERWISE NOTED)			
⊠	975XLVSR 2"	WILKINS REDUCED PRESSURE BACKFLOW ASSEMBLY W/Y STRAINER AND PRESSURE REDUCING VALVE			
©	SA6-RM7-48/ PMR/FSAV-150B/RSO	UGT SATELLITE ASSEMBLY WITH A TOP ENTRY PEDESTAL MOUNTED RAIN MASTER EVOLUTION CONTROLLER WITH PHONE MODEM AND RAINMASTER FM REMOTE TRANSMITTER/RECEIVER PAIR. CONTACT UGT AT (925)609-2180.			

CONTROLLER AND STATION NUMBER

FLOW (GPM)

REMOTE CONTROL VALVE SIZE (IN INCHES)

MAIN LINE: 2 1/2" AND SMALLER: 1120-SCHEDULE 40 PVC PLASTIC PIPE WITH SCHEDULE 40 PVC SOLVENT WELD FITTINGS.

LATERAL LINE: 3/4" AND LARGER: 1120-CL. 200 PVC PLASTIC PIPE WITH SCHEDULE 40 PVC SOLVENT WELD FITTINGS.

"SL" SHOWN ON DRAWING (TYP.)

SLEEVING: 1120-CL. 200 PVC PLASTIC PIPE. COVER TO BE AS INDICATED IN SPECIFICATIONS OR AS INDICATED BELOW FOR PIPE DEPTH OF COVER.

E E 1" PVC ELECTRICAL CONDUIT WITH PULL BOXES AND 1- EV-CAB-SEN -SENSOR WIRE AND 4- #12-1 THWN WIRES FOR MASTER VALVE.

MINIMUM COVER REQUIREMENTS

IRRIGATION COMPONENT	COVER REQUIRED, UNDER VEHICLE AREA	PAVED WALKS	LANDSCAPE
CONTROL WIRING	36 INCHES	24 INCHES	18 INCHES
PIPE (PRESSURE)	36 INCHES	24 INCHES	18 INCHES
PIPE (NON PRESSURE)	36 INCHES	24 INCHES	18 INCHES
SLEEVES	36 INCHES	24 INCHES	N/A

Irrigation Consultant:
Russell D. Mitchell Associates, Inc.
2760 Camino Diablo
Walnut Creek, CA 94597
Phone (925) 930-3985 Email: RMA@RMAIRRIGATION.COM
Fax (925) 932-5671 —RMA—

SUBMITTED JULY 19 2005
PROJECT LANDSCAPE ARCHITECT

APPROVED _____ 2005
CITY ENGINEER

RECORD DRAWING
(NO WARRANTY AS TO ACCURACY)
DATE ACCEPTED _____
PROJECT ENGINEER

1-20-06
7-2-05

REVISIONS NO.	DESCRIPTION	BY	DATE

CITY OF LAFAYETTE

PLEASANT HILL ROAD
MULTI-PURPOSE PATH IMPROVEMENTS

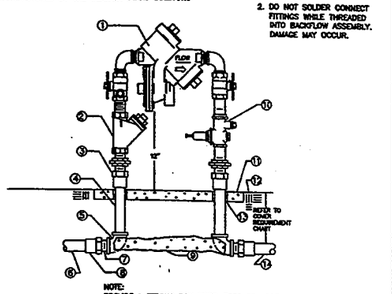
IRRIGATION LEGEND AND NOTES

DESIGNED: JC	CHECKED: CM	SCALE: NTS	
DRAWN: JC	DATE: JULY 19, 2005		
ROLL FRAME	PROJECT NO.: 014-9654	SHEET 31 OF 38	
AEI NO: 2307			

Comment Letter LAF

NOTE:
INSTALL A FREEZE PREVENTATIVE BLANKET AROUND BACKFLOW ASSEMBLY. BLANKET SHALL BE GREEN AND MANUFACTURED BY THE WEATHER GUARD COMPANY.

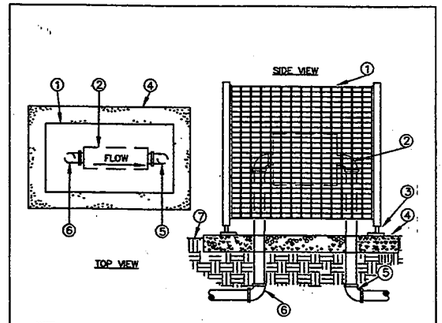
NOTES:
1. NIPPLES AND FITTINGS TO BE SAME IPT SIZE AS BACKFLOW ASSEMBLY.
2. DO NOT SOLDER CONNECT FITTINGS WHILE THREADED INTO BACKFLOW ASSEMBLY. DAMAGE MAY OCCUR.



NOTE:
PROVIDE A STRONG BOX SBBC-30SS OR ACCEPTED EQUAL 18"x 32"x 30" HIGH BACKFLOW PREVENTER ENCLOSURE TO COMPLETELY ENCLOSE DEVICE. INSTALL ENCLOSURE TO CONCRETE BASE AS DIRECTED BY MANUFACTURER.

1. REDUCED PRESSURE BACKFLOW ASSEMBLY MODEL 975 XLYSR SERIES
2. WILKINS YSBR "Y" STRAINER
3. WROT COPPER MALE ADAPTER-2 TOTAL (SOLDER X THREAD CONNECTION)
4. COPPER TYPE "K" PIPE (LENGTH AS REQUIRED)
5. WROT COPPER 90° ELBOW-2 TOTAL (SOLDER X THREAD CONNECTION)
6. PVC MAIN LINE TO POINT OF CONNECTION
7. BUSH AS NECESSARY FOR SIZE TRANSITION
8. SCHEDULE 40 PVC MALE ADAPTER-2 TOTAL
9. CONCRETE SUPPORT BLOCK
10. PRESSURE REDUCING VALVE (SET DISCHARGE PRESSURE AS INDICATED ON PLANS)
11. CONCRETE PAD-SEE ENCLOSURE DETAIL
12. FINISH GRADE
13. PVC SLEEVE BOTH SIDES
14. PVC MAIN LINE TO IRRIGATION SYSTEM

1 / 32 — REDUCED PRESSURE BACKFLOW ASSEMBLY
Scale: NONE
Det: 975 backflow

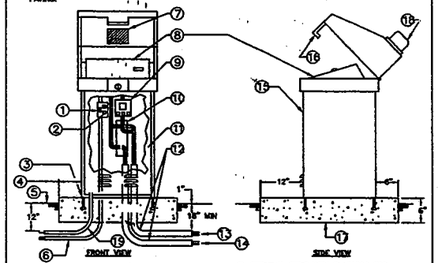


NOTE:
PAINT ENCLOSURE WITH 2 COATS OF RUSTOLEUM AS DIRECTED BY ARCHITECT.

1. STRONG BOX SMOOTH TOUCH BACKFLOW ENCLOSURE. MODEL SBBC-30CH
2. BACKFLOW PREVENTER W/ BLANKET
3. ANCHOR ROD (TYPICAL).
4. POURED CONCRETE BASE — 6" MIN. THICKNESS — EXTEND 4" BEYOND OUTSIDE DIMENSIONS OF ENCLOSURE.
5. WATER SERVICE OUTLET PIPING.
6. WATER SERVICE INLET PIPING.
7. FINISH GRADE

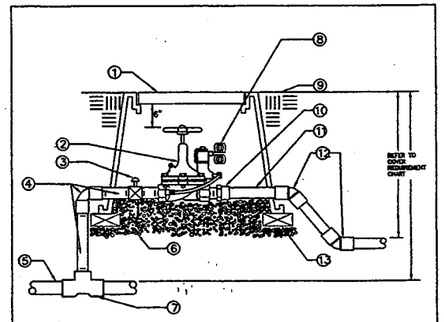
2 / 32 — SMOOTH TOUCH BACKFLOW ENCLOSURE
Scale: NONE
Det: SMOOTHTOUCH-ENC

NOTES:
1. UNIT IS TO BE ASSEMBLED, WIRED, AND TESTED BY A MANUFACTURER TRAINED VENDOR.
2. INSTALL (CONTRACTOR) ENCLOSURE TO CONCRETE PAD AS DIRECTED BY ENCLOSURE MANUFACTURER.
3. INSTALL SLAB LEVEL.
4. PROVIDE SLOPE TO TOP OF SLAB SURFACE FOR DRAINAGE.
5. PROVIDE FINISH AND COLOR TO CONCRETE ACCORDING TO SECTION 02520, PORTLAND CEMENT CONCRETE PAVING.



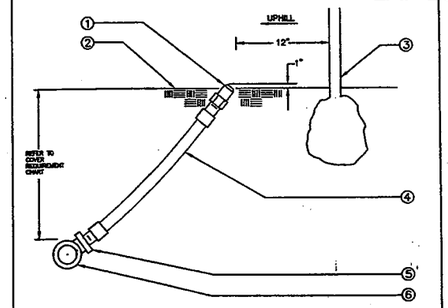
1. KEYED AND LOCKABLE ON/OFF SWITCH FOR SATELLITE CONTROLLER
2. GFCI PROTECTED 120 VAC 15AMP RECEPTACLES
3. MOUNT ASSEMBLY (CONTRACTOR) TO MOUNTING STUDS INCLUDED WITH ENCLOSURE.
4. 6" TYP. BOTH SIDES
5. FINISH GRADE
6. INSTALL (CONTRACTOR) RIGID STEEL CONDUIT FOR 120 VAC SERVICE
7. RECLAIMED WATER USE DECAL — MOUNT TO INSIDE OF LID
8. SATELLITE CONTROLLER MOUNTED ON PANEL OF ENCLOSURE
9. FLOW MONITOR (WHERE REQUIRED)
10. TERMINAL STRIP WITH PLACARDS FOR STATION IDENTIFICATION
11. REMOVABLE FRONT PANEL
12. INSTALL (CONTRACTOR) SCHEDULE 40 GREY PVC ELECTRICAL CONDUITS(2) WITH SWEEP ELL FOR LOW VOLTAGE WIRE, SIZE AS REQUIRED AND EXTEND 12" BEYOND CONCRETE SLAB.
13. LOW VOLTAGE WIRE
14. CONDUCTANCION WIRE
15. STAINLESS STEEL ENCLOSURE
16. FLIP TOP LID
17. INSTALL (CONTRACTOR) CONCRETE SLAB
18. RADIO ANTENNA (WHERE SPECIFIED)
19. 1 1/2" PVC SWEEP ELL FOR GROUND WIRE-SEE GROUNDING DETAIL

3 / 32 — CONTROLLER IN ENCLOSURE
Scale: NONE
Det: Flip-top



1. RECTANGULAR PLASTIC VALVE BOX WITH BOLT DOWN LID. ONE VALVE PER BOX— NO EXCEPTIONS. INSTALL BOX AS SHOWN IN BOX INSTALLATION DETAIL. TOP DIMENSION: 10"
2. REMOTE CONTROL VALVE WITH FLOW CONTROL AND MANUAL BLEED
3. PVC BALL VALVE — ONE PER VALVE OR VALVE MANIFOLD.
4. SCHEDULE 80 PVC THREADED FITTINGS (AS REQUIRED)
5. PVC MAIN LINE
6. PEA GRAVEL— 4" DEEP BELOW VALVE (NO SOIL IN VALVE BOX)
7. UPC APPROVED SCHEDULE 40 PVC TEE
8. VALVE CONTROL WIRE— PROVIDE 3M DRY SEAL PACKS AT ALL SPLICES AND 36" OF EXCESS OF WIRE IN A 1" DIAMETER COIL
9. FINISH GRADE
10. SCHEDULE 40 PVC MALE ADAPTER
11. PVC LATERAL LINE
12. LOWER LATERAL LINE WITH SCH. 40 PVC 45° ELBOWS
13. BRICK—180° APART

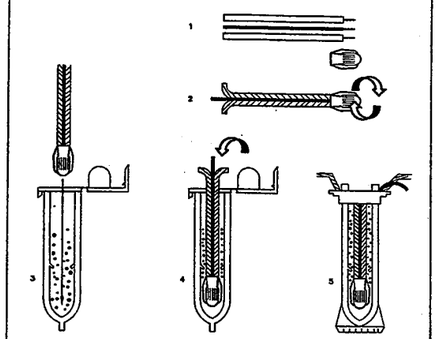
4 / 32 — REMOTE CONTROL VALVE
Scale: NONE
Det: Remote-6



NOTE:
INSTALL TWO BUBBLERS PER TREE OPPOSITE SIDE OF ROOT BALL.

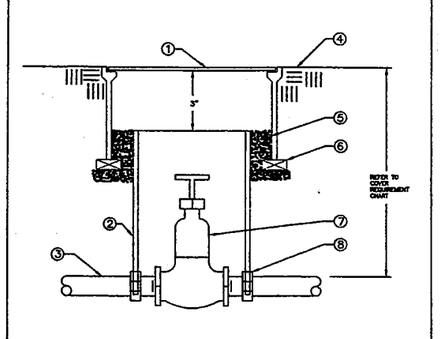
1. BUBBLER
2. FINISH GRADE
3. SHRUB OR TREE
4. COBRA CONNECTOR MODEL CC-3800 (1/2" x 36")
5. PVC TEE, OR FEMALE ADAPTER ELBOW
6. PVC LATERAL LINE

5 / 32 — SHRUB AND TREE BUBBLER
Scale: NONE
Det: Tree



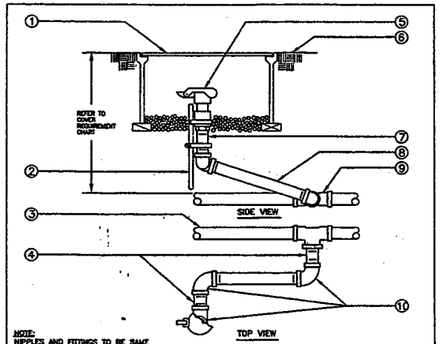
INSTRUCTIONS:
1. STRIP WIRES APPROXIMATELY 1/2" (12.7 MM) TO EXPOSE WIRE.
2. TWIST CONNECTOR AROUND WIRES CLOCKWISE UNTIL HAND TIGHT, DO NOT OVERTIGHTEN.
3. INSERT WIRE ASSEMBLY INTO PLASTIC TUBE UNTIL WIRE CONNECTOR SNAPS PAST LIP IN BOTTOM OF TUBE.
4. PLACE WIRES WHICH EXIT TUBE IN WIRE EXIT HOLES AND CLOSE CAP UNTIL IT SNAPS.
5. INSPECT FINAL SPLICE ASSEMBLY TO BE SECURE AND FINISHED.

6 / 32 — WEATHERPROOF SPLICE ASSEMBLY
Scale: NONE
Det: Wire-spl



1. ROUND PLASTIC VALVE BOX WITH BOLT DOWN LID. TOP DIMENSION: 10".
2. 8" CLASS 160 OR SCHEDULE 40 PVC PIPE (NOTCH TO FIT OVER MAIN LINE PIPE)
3. PVC MAIN LINE
4. FINISH GRADE
5. PEA GRAVEL
6. BRICK—2 TOTAL
7. GATE VALVE
8. SCHEDULE 40 PVC MALE ADAPTER

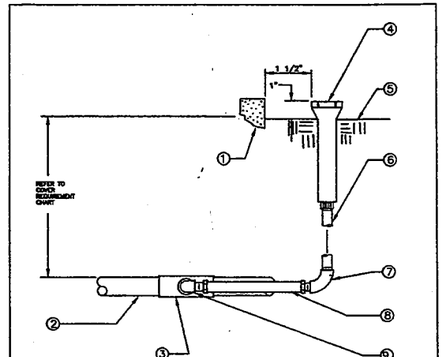
7 / 32 — GATE VALVE
Scale: NONE
Det: Sgvd



NOTE:
NIPPLES AND FITTINGS TO BE SAME SIZE AS VALVE IPT INLET THREAD SIZE

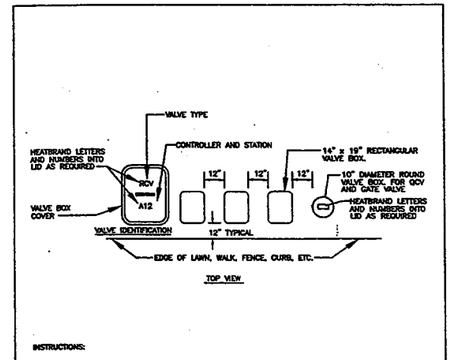
1. ROUND PLASTIC VALVE BOX WITH BOLT DOWN LID. TOP DIMENSION: 10".
2. 1 1/4" x 1 1/4" x 3/16" ANGLE IRON 30" LONG W/2 STAINLESS STEEL STRAPS (ONE AROUND QCV)
3. PVC MAIN LINE
4. 3" LONG SCHEDULE 80 PVC THREADED NIPPLE
5. QUICK COUPLING VALVE
6. FINISH GRADE
7. SCHEDULE 80 PVC THREADED NIPPLE
8. 10" LONG SHCEDULE 80 PVC THREADED NIPPLE
9. UPC APPROVED SCHEDULE 40 PVC TEE OR ELBOW
10. SCHEDULE 80 PVC THREADED 90° ELL

8 / 32 — QUICK COUPLING VALVE
Scale: NONE
Det: Quick-c2



1. WALL, WALK, CURB OR BUILDING
2. PVC LATERAL LINE
3. UPC APPROVED SCHEDULE 40 PVC TEE OR ELBOW
4. POP-UP SHRUB SPRAY SPRINKLER OR BUBBLER
5. FINISH GRADE
6. 1/2" SCHEDULE 80 PVC THREADED NIPPLE (LENGTH AS REQUIRED — TYPICAL)
7. 1/2" SCHEDULE 40 PVC THREADED 90° ELL
8. 1/2" KING BROS. FLEX RISER MODEL FR-500-8 OR EQUAL
9. 1/2" SCHEDULE 40 PVC STREET ELL

9 / 32 — POP-UP SPRAY SPRINKLER RISER
Scale: NONE
Det: P-ysar2



INSTRUCTIONS:

1. CENTER VALVE BOX OVER REMOTE CONTROL VALVE TO FACILITATE SERVICING VALVE.
2. SET BOXES 1" ABOVE FINISH GRADE OR MULCH COVER IN GROUND COVER/SHRUB AREA AND FLUSH WITH FINISH GRADE IN TURF AREA.
3. SET RCV AND VALVE BOX ASSEMBLY IN GROUND COVER/SHRUB AREA WHERE POSSIBLE. INSTALL IN LAWN ONLY IF GROUND COVER DOES NOT EXIST ADJACENT TO LAWN.
4. SET BOXES PARALLEL TO EACH OTHER AND PERPENDICULAR TO EDGE OF LAWN, WALK, FENCE, CURB, ETC.
5. AVOID HEAVILY COMPACTING SOIL AROUND VALVE BOXES TO PREVENT COLLAPSE AND DEFORMATION OF VALVE BOX SIDES.
6. INSTALL EXTENSION BY VALVE BOX MANUFACTURER AS REQUIRED TO COMPLETELY ENCLOSE ASSEMBLY FOR EASY ACCESS.
7. IDENTIFY ML VALVES ON LID OF BOX AS SHOWN ABOVE.

10 / 32 — VALVE BOX INSTALLATION
Scale: NONE
Det: Valve-b4

CONTRACTOR TO VERIFY EXISTING UTILITY LOCATIONS PRIOR TO ANY EXCAVATION CALL USA AT (800) 227-2600

Irrigation Consultant:
Russell D. Mitchell Associates, Inc.
2760 Camino Diablo
Walnut Creek, CA 94597
Phone (925) 930-3965
Fax (925) 932-5671
Email: RMA@RMAIRRIGATION.COM
RMA

SUBMITTED JULY 19 *2005*
PROJECT LANDSCAPE ARCHITECT

APPROVED _____ 2005
CITY ENGINEER
RECORD DRAWING
(NO WARRANTY AS TO ACCURACY)
DATE ACCEPTED _____
PROJECT ENGINEER

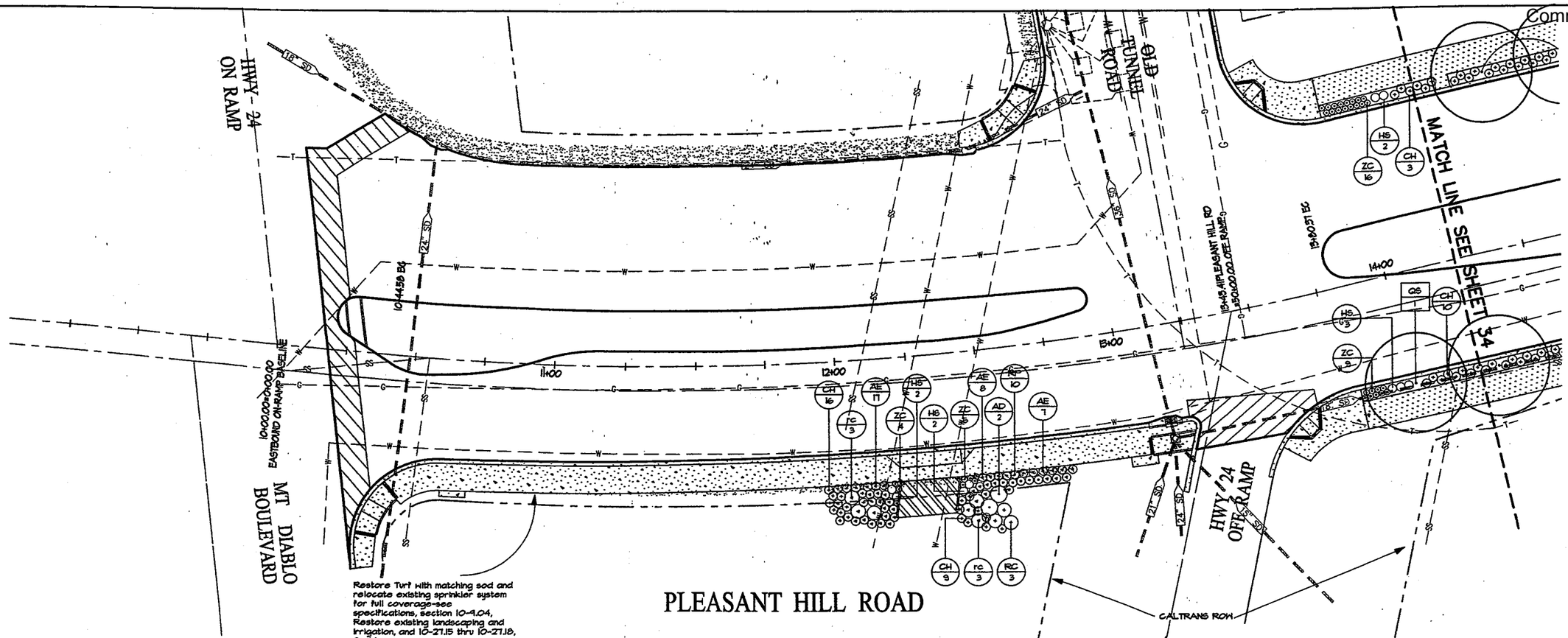
NO.	DESCRIPTION	BY	DATE
REVISIONS			

CITY OF LAFAYETTE

PLEASANT HILL ROAD
MULTI-PURPOSE PATH IMPROVEMENTS

IRRIGATION DETAILS

DESIGNED: JC | CHECKED: CM | SCALE: NTS
DRAWN: JC | DATE: JULY 19, 2005
ROLL FRAME | AEI NO: 2307 | PROJECT NO.: 014-9654
SHEET 32 OF 38



Planting Legend

SYM	SCIENTIFIC NAME	COMMON NAME	SIZE	QTY. (ALL SHEETS)
TREES				
CO	Cercis occidentalis	Western Redbud	15 gal.	4
CC	Cotinus coggygria	Smoke Tree	15 gal.	2
GB	Ginkgo biloba	Maidenhair Tree	24" box	52
QA	Quercus agrifolia	Coast Live Oak	15 gal.	19
QS	Quercus shumardii	Shumard Red Oak	15 gal.	16
SHRUBS				
AD	Arctostaphylos densiflora 'Howard McMinn'	Manzanita 'Howard McMinn'	5 gal	13
AE	Arctostaphylos edmondsii 'Carmel Sur'	Manzanita 'Carmel Sur'	1 gal	52
AP	Artelida purpurea'	Purple three-awn	1 gal	185
CH	Cotoneaster horizontalis	Cotoneaster	1 gal	208
HS	Helictotrichon sempervirens	Blue Oat Grass	1 gal	144
ID	Iris douglasiana 'Pacific Coast Hybrid'	Iris	1 gal	405
RC	Rhamnus californica 'Eve Case'	Coffeeberry	5 gal	3
rc	Rhamnus californica 'Seaview Improved'	Coffeeberry "si"	1 gal	6
RS	Ribes sanguineum	Red flowering currant	5 gal	53
RP	Rubus pentalobus	Bramble	1 gal	348
SP	Stipa pulchra	Feather grass	1 gal	181
ZC	Zauschneria californica (Epilobium)	California fuschia	1 gal	673

QS / 4 — TREE SYMBOL - SEE PLANT LIST / QUANTITY

CO / 1 — SHRUB SYMBOL - SEE PLANT LIST / QUANTITY

EXISTING TREE TO REMAIN

PLANTING NOTES

1. STAKE ALL TREES AS PER DETAIL
2. TREE LOCATION AND MASSING TO BE VERIFIED IN THE FIELD BY LANDSCAPE ARCHITECT.
3. BRANCHING HEIGHT OF TREES SHALL BE A 6'-0" MINIMUM ABOVE FINISHED GRADE.
4. ALL TREES IN A FORMAL GROUP PLANTING SHALL BE MATCHING IN SIZE AND SHAPE.
5. PROVIDE CONTINUOUS WATER BARRIERS PER DETAIL.
6. SEE CIVIL PLANS FOR LOCATION OF PAVING, UTILITIES AND ALL EXISTING TREES TO REMAIN. ALL GRADING SHOWN IS FOR REFERENCE ONLY. SEE CIVIL PLANS FOR FINAL GRADING PLANS. CONTRACTOR TO CLOSELY COORDINATE WITH WITH ALL OTHER CONTRACTORS.
7. CONTRACTOR SHALL CLOSELY COORDINATE THE LOCATION OF ALL TREES WITH ALL UNDERGROUND AND ABOVE GRADE UTILITIES.
8. CONTRACTOR SHALL LOCATE AND TAG ALL TREES AT NURSERY AT TIME OF ACCEPTANCE OF CONTRACT TO ENSURE AVAILABILITY OF HEALTHY SPECIMENS. TREES TO BE APPROVED BY LANDSCAPE ARCHITECT. SEE SPECIFICATIONS.
9. PLANT QUANTITIES ARE FOR GENERAL REFERENCE ONLY CONTRACTOR IS RESPONSIBLE FOR PROVIDING QUANTITIES SHOWN ON PLAN.
10. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

6" DRAIN LOCATION AND TIE-IN TO STORM DRAIN SYSTEM (Mt. Diablo Boulevard to Reliez Station Road) City Project No. 014-9654

RIGHT SIDE DRAIN LOCATION	TIE-IN TO STORM DRAIN SYSTEM
Sta. 14+75±	
Sta. 15+65±	
Sta. 16+10±	
Sta. 17+00±	
	MH @ Sta. 17+02±
Sta. 17+75±	
Sta. 18+15±	
Sta. 19+45±	
	MH @ Sta. 19.91±
Sta. 20+50±	
Sta. 21+55±	
Sta. 22+55±	
Sta. 23+25±	
	CB @ Sta. 23+34±
Sta. 24+45±	
Sta. 25+50±	
Sta. 26+80±	
Sta. 27+65±	
	CB @ Sta. 28+06±
Sta. 29+00±	
Sta. 30+00±	
Sta. 30+85±	
Sta. 32+55±	
	CB @ Sta. 32+41±
Sta. 33+60±	
Sta. 34+75±	
	CB @ Sta. 34+85±
Sta. 36+20±	
	CB @ Sta. 35+80±
	(End of Subdrain System RT)
TOTALS 22 Drains	7 Connections

LEFT SIDE DRAIN LOCATION	TIE IN TO STORM DRAIN SYSTEM
Sta. 14+45±	
Sta. 14+85±	
Sta. 16+00±	
Sta. 17+00±	
	CB @ Sta. 17+40±
Sta. 18+00±	
Sta. 19+25±	
Sta. 20+00±	
Sta. 21+05±	
Sta. 22+00±	
	CB @ Sta. 22+51±
Sta. 22+60±	
Sta. 23+50±	
Sta. 24+25±	
Sta. 25+25±	
Sta. 26+70±	
Sta. 27+20±	
	CB @ Sta. 27+22±
	(End of Subdrain System LT)
TOTALS 14 Drains	5 Connections

GRAND TOTAL : 36 DRAINS 10 CONNECTIONS

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WOLFE MASON ASSOCIATES
LANDSCAPE ARCHITECTS
RESTORATION SPECIALISTS
6573 Shattuck Avenue
Oakland, CA 94609
Phone 510.594.8160
Fax 510.594.8165
wolfemason.com

SUBMITTED JULY 19, 2005
PROJECT LANDSCAPE ARCHITECT

APPROVED _____ 2005
CITY ENGINEER
RECORD DRAWING
(NO WARRANTY AS TO ACCURACY)
DATE ACCEPTED _____
PROJECT ENGINEER

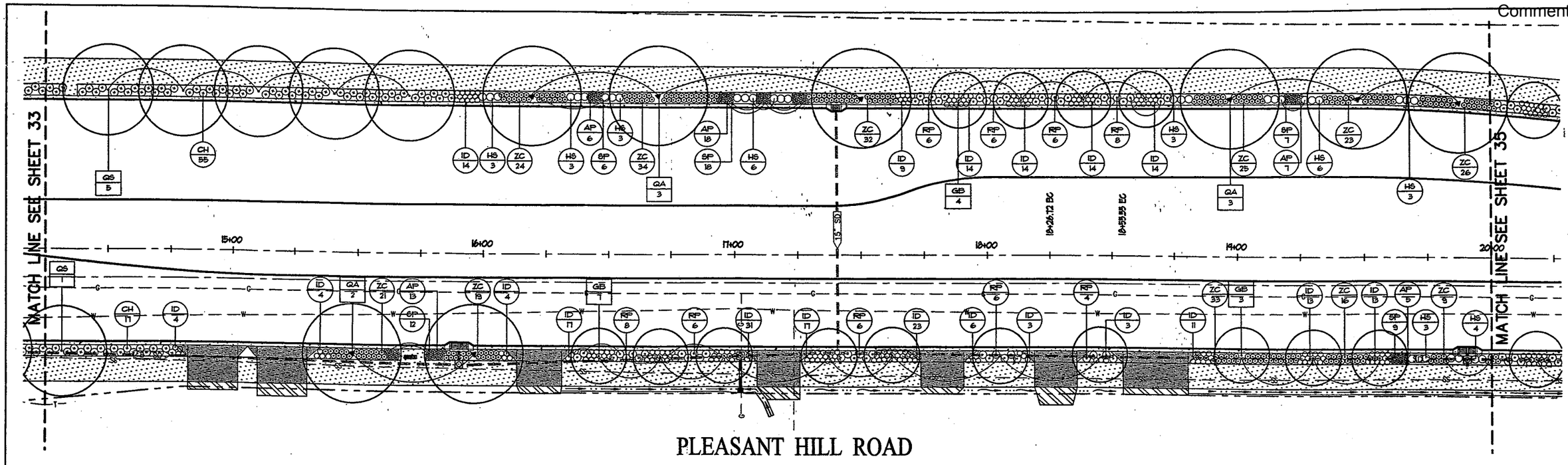
REVISIONS NO.	DESCRIPTION	BY	DATE

CITY OF LAFAYETTE

PLEASANT HILL ROAD MULTI-PURPOSE PATH IMPROVEMENTS

PLANTING PLAN STA 10+00 TO STA 14+25

DESIGNED: JH/CPD	CHECKED: SS	SCALE:	1"=20'
DRAWN: JH/CPD	DATE: JULY 19, 2005		
ROLL FRAME	PROJECT NO.: 014-9654	SHEET	33 OF 38
AEI NO: 2307			



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WOLFE MASON ASSOCIATES

LANDSCAPE ARCHITECTS
RESTORATION SPECIALISTS

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Fax 510.594.8165
wolfemason.com

SUBMITTED JULY19, 2005
PROJECT LANDSCAPE ARCHITECT

APPROVED _____ 2005
CITY ENGINEER

RECORD DRAWING
(NO WARRANTY AS TO ACCURACY)
DATE ACCEPTED _____
PROJECT ENGINEER

REVISIONS

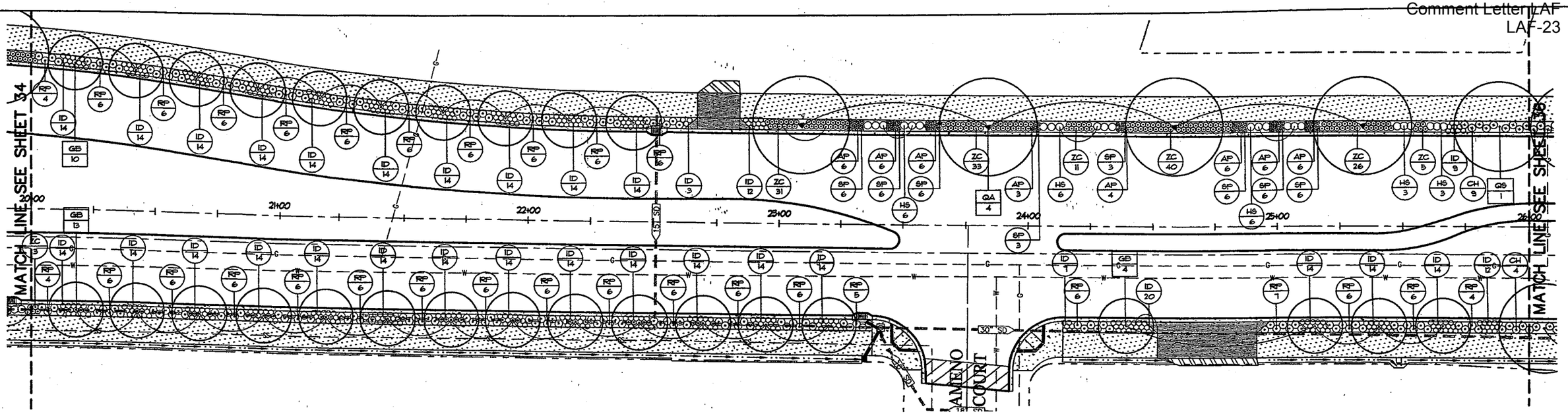
NO.	DESCRIPTION	BY	DATE

CITY OF LAFAYETTE

PLEASANT HILL ROAD
MULTI-PURPOSE PATH IMPROVEMENTS

PLANTING PLAN
STA 14+25 TO STA 26+00

DESIGNED: JH/CPD | CHECKED: SS | SCALE: 1"=20'
DRAWN: JH/CPD | DATE: JULY 19, 2005
ROLL FRAME | PROJECT NO.: 014-9654 | SHEET 34 OF 38



PLEASANT HILL ROAD

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WOLFE MASON ASSOCIATES

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SUBMITTED JULY 19, 2005
PROJECT LANDSCAPE ARCHITECT

1-30-06
4-25-05

APPROVED _____ 2005
CITY ENGINEER

RECORD DRAWING
(NO WARRANTY AS TO ACCURACY)
DATE ACCEPTED _____
PROJECT ENGINEER

REVISIONS

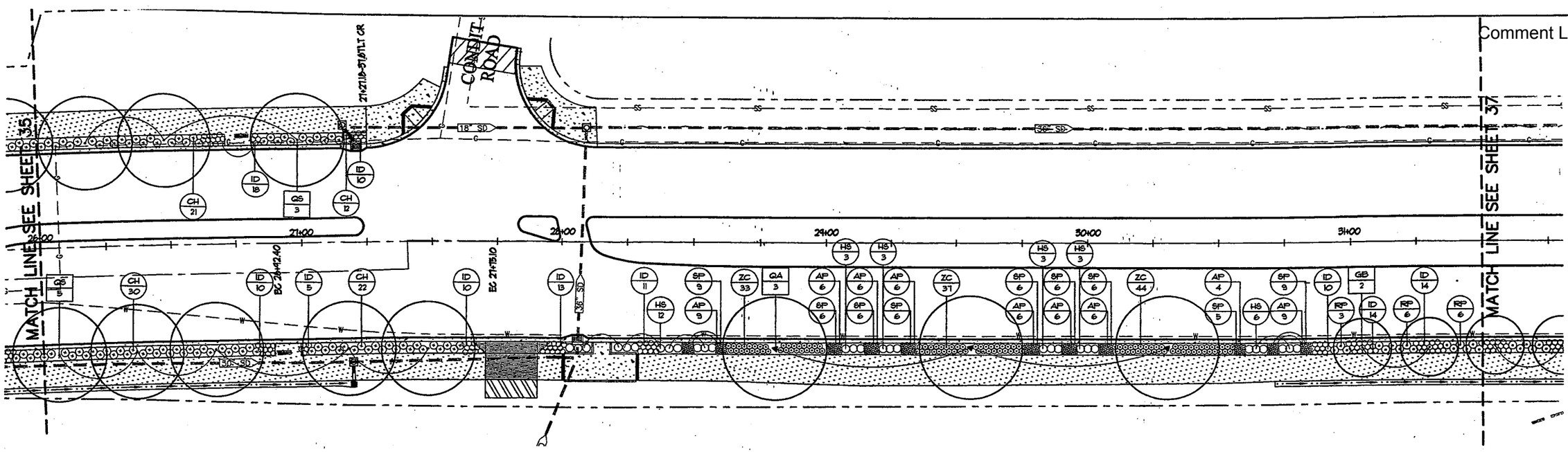
NO	DESCRIPTION	BY	DATE

CITY OF LAFAYETTE

PLEASANT HILL ROAD
MULTI-PURPOSE PATH IMPROVEMENTS

PLANTING PLAN
STA 20+00 TO STA 26+00

DESIGNED: JH/CPD | CHECKED: SS | SCALE: 1"=20'
DRAWN: JH/CPD | DATE: JULY 19, 2005
ROLL FRAME | PROJECT NO.: 014-9654
AEI NO: 2307



PLEASANT HILL ROAD

CONTRACTOR TO VERIFY EXISTING UTILITY LOCATIONS PRIOR TO ANY EXCAVATION CALL USA AT (800) 227-2600

WOLFE MASON ASSOCIATES
LANDSCAPE ARCHITECTS
RESTORATION SPECIALISTS
6573 Shattuck Avenue
Oakland, CA 94609
Phone 510.594.8160
Fax 510.594.8165
wolfemason.com

SUBMITTED JULY 19, 2005
PROJECT LANDSCAPE ARCHITECT

1-30-06
2-8-05

APPROVED _____ 2005
CITY ENGINEER
RECORD DRAWING
(NO WARRANTY AS TO ACCURACY)
DATE ACCEPTED _____
PROJECT ENGINEER

REVISIONS NO.	DESCRIPTION	BY	DATE

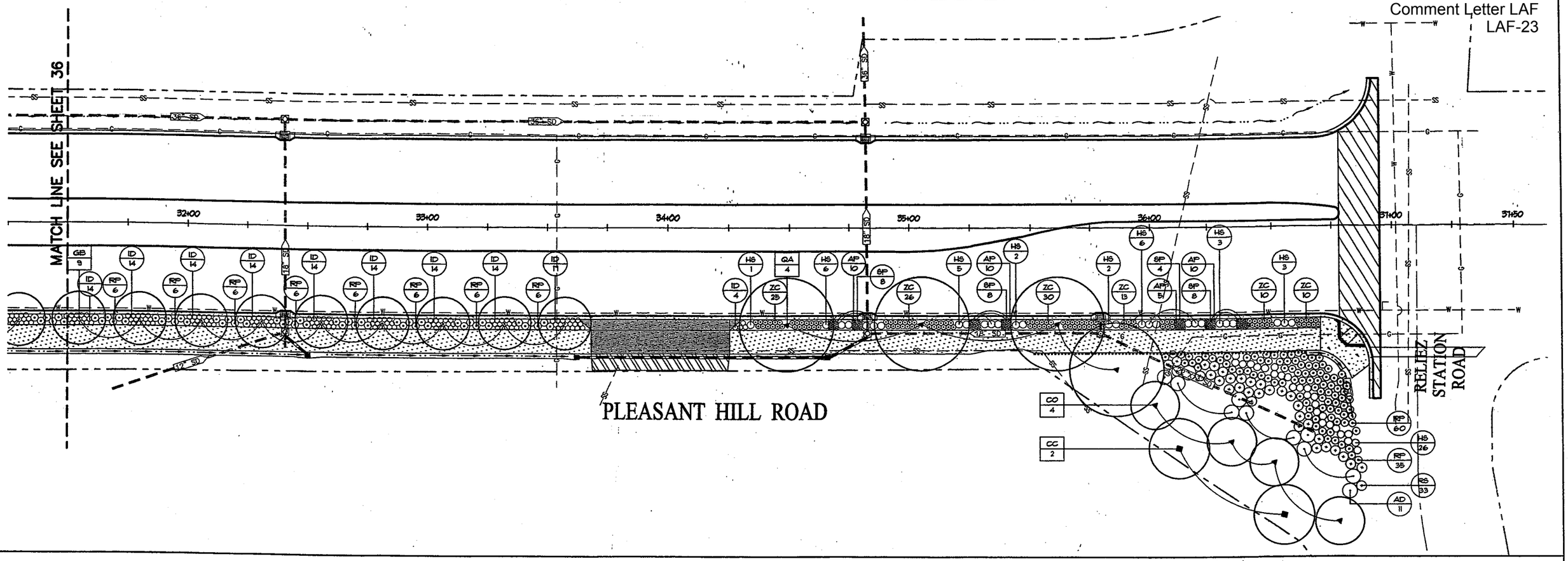
CITY OF LAFAYETTE

PLEASANT HILL ROAD
MULTI-PURPOSE PATH IMPROVEMENTS

PLANTING PLAN
STA 26+00 TO STA 31+50

DESIGNED: JH/CPD | CHECKED: SS | SCALE: 1"=20'
DRAWN: JH/CPD | DATE: JULY 19, 2005
ROLL FRAME | AEI NO: 2307 | PROJECT NO.: 014-9654 | SHEET 36 OF 38

Comment Letter LAF
LAF-23



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1-30-06
2-8-05

APPROVED _____ 2005
CITY ENGINEER

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(NO WARRANTY AS TO ACCURACY)
DATE ACCEPTED _____
PROJECT ENGINEER

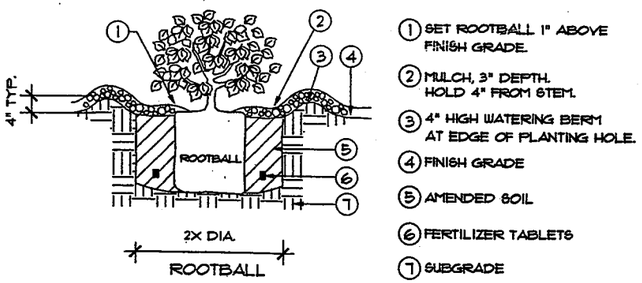
REVISIONS NO.	DESCRIPTION	BY	DATE

CITY OF LAFAYETTE

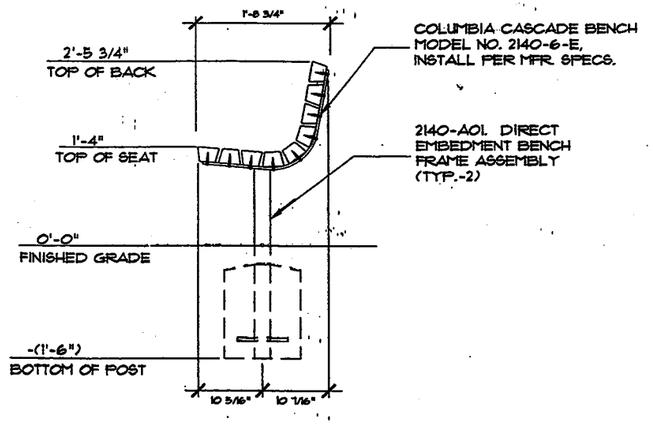
PLEASANT HILL ROAD
MULTI-PURPOSE PATH IMPROVEMENTS

PLANTING PLAN
STA 31+50 TO STA 37+00

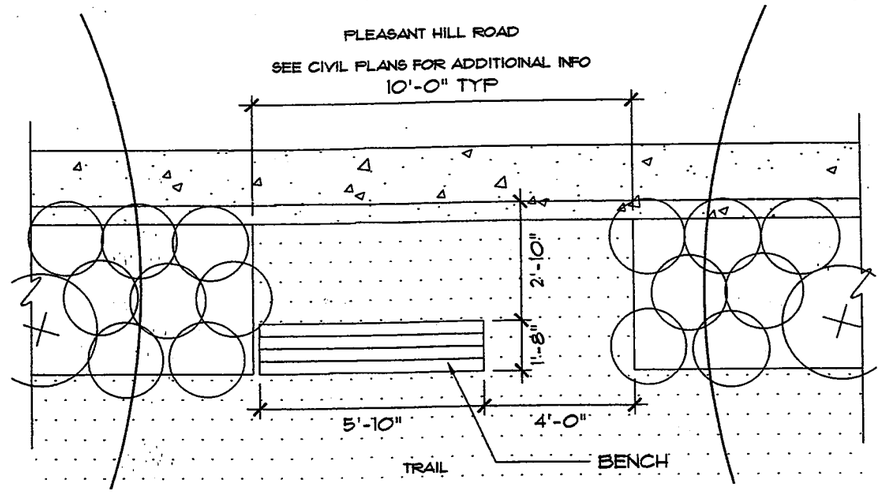
DESIGNED: JH/CPD	CHECKED: SS	SCALE: 1"=20'
DRAWN: JH/CPD	DATE: JULY 19, 2005	
ROLL FRAME	PROJECT NO.: 014-9654	SHEET 37 OF 38
AEI NO: 2307		



1 SHRUB PLANTING
SCALE: NTS

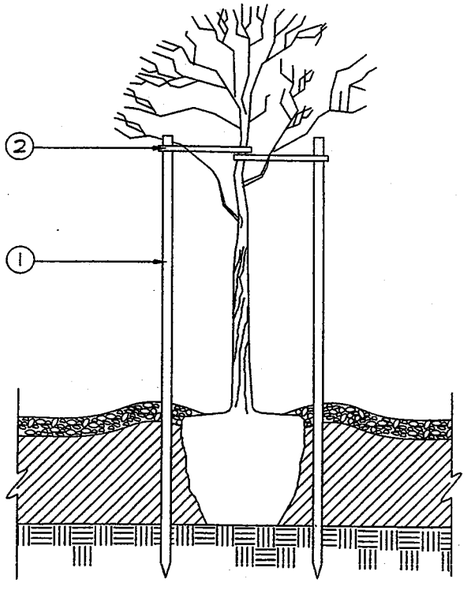


2 BENCH INSTALLATION
SCALE: 1"=1'



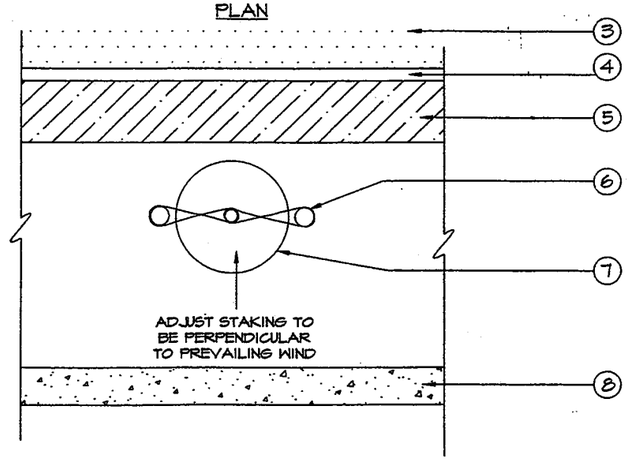
3 BUS STOPS
SCALE: 1/2"=1'

SECTION

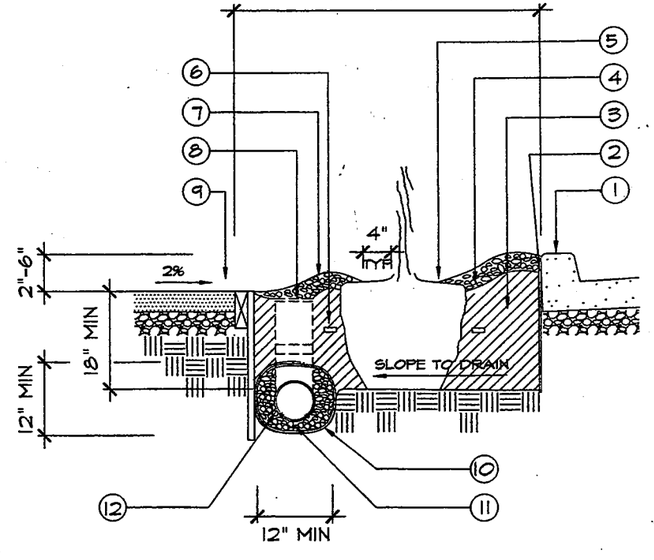


LEGEND:
1. STAKES. HOLD VERTICAL. DO NOT PENETRATE ROOTBALL.
2. TREE STRAPS, SEE SPECS
3. SIDEWALK, SEE CIVIL
4. HEADER AND STEEL STAKE, SEE CIVIL
5. DRAINLINE/DRAIN ROCK, SEE TREE PLANTING DETAIL
6. STAKES AND TREE STRAPS, SEE SPECS
7. ROOT BALL
8. CURB, SEE CIVIL

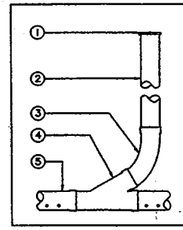
PLAN



4 TREE STAKING
SCALE: 1"=1'



LEGEND:
1. CURB, SEE CIVIL PLANS
2. WATER BARRIER CONT. - DEEP ROOT CORP., MODEL WB 24 OR EQUAL. INSTALL TOP OF BARRIER ½" ABOVE SOIL GRADE
3. BACKFILL
4. 3" LAYER OF MULCH - HOLD 4" AWAY FROM TREE TRUNK
5. ROOTBALL
6. FERTILIZER TABLET, TYP.
7. 4" WATERING BERM AROUND TREE
8. 6" DIAMETER PVC PIPE, WITH DRAIN FITTING, REFER TO DRAIN LOCATION AND DETAIL. RISER TO BE LOCATED NO CLOSER THAN 12 FEET FROM ANY TREE.
9. TRAIL- SEE CIVIL PLANS
10. FILTER FABRIC - OVERLAP TOP MIN. 12", SEE SPECS
11. DRAINROCK, SEE SPECS.
12. 6" DIAMETER PERFORATED PVC PIPE - TIE TO SD SYSTEM.



LEGEND:
1. NDS 906, 6" ROUND HEAVY DUTY CAST IRON GRATE WITH BLACK POWDER COATING. OPEN SURFACE AREA 30 SQUARE INCHES. 1,713 GPM. H-20 LOAD RATING. SET RIM 2" BELOW ADJACENT PAVING.
2. 6" PVC DRAIN PIPE
3. 6" ⅛ BEND
4. 6" WYE
5. 6" DIAMETER PERFORATED PVC PIPE

5 TREE PLANTING AND DRAIN CONNECTION
SCALE: 1"=1'

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SUBMITTED JULY 19, 2005
PROJECT LANDSCAPE ARCHITECT

APPROVED _____ 2005
CITY ENGINEER
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(NO WARRANTY AS TO ACCURACY)
DATE ACCEPTED _____
PROJECT ENGINEER

CITY OF LAFAYETTE
PLEASANT HILL ROAD
MULTI-PURPOSE PATH IMPROVEMENTS
PLANTING PLAN DETAILS

REVISIONS NO.	DESCRIPTION	BY	DATE

DESIGNED: JH/CPD | CHECKED: SS | SCALE: NTS
DRAWN: JH/CPD | DATE: JULY 19, 2005
ROLL FRAME | AEI NO: 2307 | PROJECT NO.: 014-9654
SHEET 38 OF 38

2.7 Steven Falk, City Manager, City of Lafayette

LAF-1 Alternatives 1 and 2 had the best performance in four out of five of the weighting scenarios and were selected for more detailed study in the DEIR. The remaining four alternatives were eliminated from further study for the reasons summarized in Section 6.10.1 of the DEIR. The June 2005 "Lamorinda Water System Improvements Program Facility Plan" (referenced on DEIR p. 6-71), p. 6-1 states "Alternatives 1 and 2 are recommended for further evaluation. Further evaluation will include….public outreach with these alternatives as a basis of discussion." Alternative 1 was selected as the preferred alternative, because it is the environmentally superior alternative. Section 6.11 of the DEIR presents a comparison of Alternative 1 and 2. Alternative 1 is considered environmentally superior to Alternative 2, because of the impacts associated with the tunnel, the greater number of residences closer to the Orinda WTP, the more extensive construction footprints and greater excavation requirement, the potential cumulative construction impacts to Camino Pablo, and the fewer protected trees lost under Alternative 1.

Redundancy is a factor that several Board Members of EBMUD have indicated is also important in their preference between the two alternatives. However, consistent with the CEQA Guidelines, Section 15126.6(a), the comparison of alternatives and determination of the environmentally superior alternative is based on the ability of the alternative to meet the basic objectives of the project while avoiding or substantially lessening any significant impacts.

LAF -2 The alternatives listed in this comment are Alternatives 3, 4, 5, and 6 from the Lamorinda Water System Improvements Program Facilities Plan (Lamorinda Facilities Plan). These alternatives were evaluated by their performance relative to project objectives. Alternative 1 and 2 had the best performance in four out of five of the weighting scenarios and were selected for more detailed study. The remaining four alternatives were eliminated from further study for the reasons summarized in Section 6.10.1 of the DEIR (starting on p.6-43).

Alternative 4 is a hybrid of Alternatives 1 and 2 and it essentially combines the impacts of both. The fact that some facilities at the Orinda WTP would be smaller than those proposed under Alternative 2 could reduce the duration of some construction activities, such as clearwell excavation, but these reductions would have little or no effect on other activities, such as tunnel construction. See **Response LAF-1**.

LAF-3 As part of the design process, EBMUD will coordinate with the City of Lafayette Design Review Commission and Planning Services Division when selecting color schemes and materials for the proposed projects. EBMUD understands that the City of Lafayette would like the new structures to blend into the natural environment to the extent possible. The use of natural earth tones, particularly in the brown and green range, is acceptable for this project and will be discussed with the city (refer to

Measure 3.3-2c, DEIR p. 3.3-36). Please also refer to Section 2.1.3, Master Response on EBMUD Obligations to Comply with Local Ordinances, Obtain Local Agency Approvals and Permits, and Pay Local Agency Fees for additional response pertinent to this comment.

LAF-4 Visual simulations, presented as Figures 17 through 20, are included to show the appearance of the revised Highland Reservoir site. Figures 17 and 18 show a close range "before" and "after" view of the new tank structure as seen from the Rim Trail both with and without the new landscaping that is proposed as part of the project. The photo was taken in October 2006. A conceptual landscape plan proposes native tree and shrub planting in the area between the trail and the new reservoir. New trees are also proposed around portions of the tank perimeter for screening purposes (refer to Figure 16).

Figures 19 and 20 present a second simulation view from the Big Oak Trail at a distance of over one half mile away. Figure 15 is an annotated photo taken from the Rim Trail showing the Revised Highland Reservoir tank site location. This is the same photo that was used for the visual simulation of the DEIR Proposed Highland Reservoir site (refer to DEIR Figures 3.3-HIGHRES-1 and 3.3-HIGHRES-5 and-6). The new visual simulations and photographs demonstrate that the DEIR Proposed and the Revised Highland Reservoir sites would generally result in the same type and magnitude of visual impact with respect to effects on views from the Lafayette Reservoir Recreation Area. As discussed below, the Revised Highland Reservoir site would also result in minor effects on views from a limited residential area to the north.

Figure 14 presents two annotated photos of the Revised Highland Reservoir site taken from the hillside residential area that is located about three quarters of a mile to the north. The photos were taken in October 2006. As shown in these annotated photos the reservoir would appear against a landscape backdrop and would be partially screened by existing vegetation. Given the viewing distance and the presence of a landscape backdrop as well as existing intervening landscape screening, the new tank and proposed tree removal would not be particularly evident from this location. Over time the landscape proposed as part of the project would provide additional screening. These visual effects are considered less than significant.

LAF-5 Converting parcels 252-050-014 and 252-050-16 from private ownership to public open space would neither improve nor in any way affect the visual impacts associated with the Highland Reservoir. Both properties are at a substantially lower elevation than the reservoir and are hundreds of feet away from the proposed site.

Parcel 252-050-014 is shown on Map C-HIGHRES-1 as a construction access road and stockpile area. This use is temporary. While negotiations with the landowners may lead to EBMUD's purchase of the property, the District plans to rent the property for the duration of the project.

LAF-6 The dates of photos including visual simulation photos that are presented in the DEIR and this Response to Comments document are as follows. The * denotes photographs used for visual simulations.

Photo Numbers	Photo Date
A1-A8 (A7*)	October 13, 2005
A9 - A-12	July 20, 2005
F1- F4 (F1*)	November 8, 2005
F5, F6	October 13, 2005
F7, F8	November 8, 2005
G1-G4	November 26, 2005
H1*, H2, H3, H4*	November 10, 2005
HP1	November 10, 2005
HP2	February 14, 2006
HP3	November 10, 2005
HP4	November 8, 2005
HV1*, HV2	February 14, 2006
HV3, HV4	October 20, 2005
L1*	November 8, 2005
L2*, L3, L4	October 12, 2005
L5	October 13, 2005
L6	October 12, 2005
L7, L8	October 13, 2005
M1-M3	October 13, 2005
O1-O5 (O3*)	October 20, 2006
O6*	December 31, 2005
O7-O11	October 20, 2005
S1, S2*	October 20, 2005
S3	February 14, 2006
S4	October 20, 2005
S5-S11	February 14, 2006
SS1, SS2, SS3*	February 8, 2006
SS4	October 20, 2005
T1	July 20, 2005
T2	November 10, 2005
T3*	November 8, 2005
T4	July 20, 2005
U1-U8	November 8, 2005
W1	October 12, 2005
W2*, W3	November 10, 2005
W4	October 12, 2005
WC1-8 (WC2*, WC6*)	December 6, 2005

LAF-7 In response to this comment and others expressing concern about loss of and disturbance to trees at the Highland Reservoir site, EBMUD has analyzed a Revised Highland Reservoir Site and is considering this site. The text of Measure 3.6-1e has been modified accordingly (refer to Section 3.2, Text Revisions, in this Response to

Comments document). Please see Section 3.3 in this Response to Comments document for additional information.

LAF-8 The WTTIP project spans multiple jurisdictions, most of which do not specify tree replacement ratios. The DEIR uses a standard tree replacement ratio often used by the California Department of Fish and Game (CDFG), that would be uniformly applied at all WTTIP project sites requiring tree replacement. While the District is willing to consider the city's recommendation, the CDFG ratio is an approach that the District prefers to adopting ratios promulgated by a single jurisdiction.

LAF-9 CEQA requires that a good faith effort at full disclosure be made in the EIR (CEQA Guidelines Section 15204 [a]), and the DEIR makes this effort to estimate impacts to protected trees. As noted on DEIR p. 3.6-1, a general tree assessment was completed to estimate the number of protected trees that would be affected in accordance with each city's or county's tree ordinance. Prior to project implementation and/or further site-specific CEQA review for project elements analyzed at a program level, trees would be mapped and information regarding the species and size, as well as numbers of trees, would be compiled so that tree removal could be properly mitigated for. See DEIR Measure 3.6-1a, Tree Protection Measures During Construction and Measure 3.6-1b, Protected Tree Pruning and Replacement.

LAF-10 This request regarding protected trees is acknowledged. In response to **Comments LAF-10**, **CAOF-2**, **MB-5**, and **TJK-4**, regarding clarification and specification in terms of replacement trees, Measure 3.6-1b, Protected Tree Pruning and Replacement, of the DEIR is revised (refer to Section 3.2, Text Revisions, in this Response to Comments document).

LAF-11 Consistent with Measure 3.2-2a (see third bullet on DEIR p.3.3-35), the District will get input from the City regarding final landscape plans. The District will adhere to the performance and prescriptive standards for landscaping and tree replacement set forth in Measures 3.6-1a through 3.6-1e and 3.3-2a through 3.3-2c. The conceptual landscape plans developed for the DEIR are representative and illustrate the scale and extent of landscaping needed to mitigate visual impacts. The DEIR acknowledges that the landscape plans will be refined and that the measures to compensate for tree loss will need to dovetail with the landscaping plans. With respect to the Highland Reservoir (and other project sites), some replacement trees would be planted elsewhere (for the Highland Reservoir, elsewhere within the Lafayette Reservoir Recreation Area as first choice and if not feasible for all trees, the balance will be placed at the District's Pinole Valley property) because the site is not big enough to accommodate the replacement trees at the specified ratios.

Please also refer to Section 2.1.3, Master Response on EBMUD Obligations to Comply with Local Ordinances, Obtain Local Agency Approvals and Permits, and Pay Local Agency Fees for additional response pertinent to this comment.

LAF-12 A measure is added to the list of mitigation requirements in Measure 3.8-1 on DEIR p. 3.8-13 to provide that the requested signage will be incorporated into contract specifications for the project (refer to Section 3.2, Text Revisions, in this Response to Comments document).

LAF-13 On DEIR p. 3.10-31, Measure 3.10-1b states that, "Construction at the WTTIP project sites will be restricted to the hours of operation specified by each jurisdiction's noise ordinance (as listed in Table 3.10-1, including restrictions provided in footnotes and any other ordinance exceptions and provisions in effect at the time of EIR publication), except during critical water service outages or other emergencies and special situations. Any equipment operating beyond these hours will be subject to the day and night noise limits of each jurisdiction (as listed in Table 3.10-1) for various activities in single-family residential zones." Some equipment must be operated 24 hours per day for purposes of ground control and ventilation (in projects involving tunneling) and dewatering (for excavation below the groundwater table). To address coordination with local jurisdictions when work occurs outside of the hours of 7:00 a.m. and 6:00 p.m., EBMUD has revised Measure 3.10-1b in response to this and similar comments (refer to Section 3.2, Text Revisions, in this Response to Comments document).

To ensure that these standards could be met at the closest sensitive receptors, EBMUD will conduct a noise monitoring program prior to implementation of any project where construction would extend beyond ordinance time limits to accurately determine baseline ambient noise levels at the closest residential receptors and to measure noise levels at these receptors during a test run of equipment proposed to be operated on the site during the more noise-sensitive nighttime hours. Project noise limits will be adjusted appropriately depending on the existing ambient noise levels[1] to ensure noise disturbance is maintained at a less-than-significant level at the closest residential receptors. Measures that could be implemented to reduce noise levels (as demonstrated in Table 3.10-6) to meet local nighttime standards include engine controls listed in Measure 3.10-1a, tunnel-related measures listed in Measure 3.10-1c, and temporary sound barriers listed in Measure 3.10-1e.

LAF-14 As shown in Table 3.10-1 (DEIR p. 3.10-4), the Lafayette Municipal Code allows construction between 10:00 a.m. and 6:00 p.m. on Sundays and holidays with a permit, if noise is less than 83 dBA at 50 feet (25 feet if enclosed) or the noise level at the nearest affected property shall not exceed 80 dBA. Section 5-209 provides exceptions if compliance would be impractical or unreasonable. Should special

[1] If baseline noise levels already exceed standards at the closest residential receptors, the standards will be increased appropriately so that construction noise levels do not result in a noticeable increase in ambient noise levels at these receptors.

circumstances require construction on holidays, the District will coordinate construction with local agencies.

LAF-15 Measure 3.8-1, DEIR pp. 3.8-13 through 3.8-15, sets forth elements of the traffic safety / traffic management plans that contractor(s) will be required to submit, as part of the encroachment permit process for work in the public right-of-way, to the agencies with jurisdiction over the roads affected by the project. Because project facilities have different circumstances and needs, Measure 3.8-1 does not attempt to list all elements to be included for each facility. Instead, the measure lists the elements most likely to be included, but does not limit the plans to only those elements.

The elements stipulate that construction activities will be coordinated, to the extent possible, to minimize traffic disturbances adjacent to schools (e.g., work during summer). For construction activities that occur during the school year, the contractor(s) will provide flaggers at the start and end of the school day at all schools in the vicinity of a pipeline project (e.g., Bentley School on El Nido Ranch Road), to ensure traffic and pedestrian safety.

LAF-16 The District would comply with the construction hours specified in encroachment permits required for the project. Note that reducing the hours of construction where road closures are necessary prolongs the overall duration of construction. The proposed construction hours (9:00 a.m. to 4:00 p.m. for hauling and 8:30 a.m. to 4:30 p.m. for pipeline work in roads) reflect an attempt to balance the trade-off between construction hours for each specific day and overall duration. Measure 3.8-1 (DEIR p. 3.8-13 through 3.8-15) states “to the extent feasible, and as needed to avoid adverse impacts on traffic flow, schedule truck trips outside of peak morning and evening commute hours.”

LAF-17 The Glen Pipeline Improvements project is the only project in Lafayette requiring full street closure where no detour routing is available. Access impacts on this road would be significant and unavoidable. Measure 3.8-1 (DEIR p.3.8-13) has been modified to include a 21-day advance notice of full street closures associated with this project to the property owners along Glen Road, Nordstrom Lane, Hilltop Drive, and Hastings Court (refer to Section 3.2, Text Revision, in this Response to Comments document).

LAF-18 As discussed on DEIR p. 2-40, the District intends to relocate the existing Walter Costa Trail and would coordinate with the City to establish the new alignment. EBMUD has discussed with City staff measures that would be consistent with Measure 3.8-1.

LAF-19 The commenter requests that a detour for the Lafayette Reservoir Rim Trail be maintained throughout construction of the Highland Reservoir. As described on DEIR p. 3.2-18, a segment of the Rim Trail, from the Lakeside Trail intersection to

just beyond the proposed reservoir location would be closed during construction of the reservoir. EBMUD has not considered the addition of a Rim Trail detour route. It would increase the project footprint in this area, and could potentially require removal of additional protected trees, disturb other natural resources and increase soil erosion. However, as noted on DEIR p. 3.2-18, Rim Trail users could bypass the closed trail section through use of the Westview Trail or other trails that link the Lakeside and Rim Trails. Therefore, detour routing for the Rim Trail will be available throughout the construction period.

LAF-20 Refer to **Response BM-10**. EBMUD has not rejected implementation of a membrane filtration alternative at the Lafayette WTP. If, during design, EBMUD decides to implement a membrane filtration plant, the District will provide additional information to and coordinate with the City regarding the appearance of the Lafayette WTP.

LAF-21 The DEIR (p.2-89, first paragraph) identifies the cost estimates for Alternatives 1 and 2. The focus of the EIR is on evaluating the environmental impacts of the proposed project.

EBMUD has a capital improvement program (CIP) that typically expends approximately $100 million each fiscal year. These projects, spread over some ten years, are expected to keep the CIP at current rates and currently anticipated rate increases.

LAF-22 This comment is a copy of the City of Lafayette Tree Ordinance, which was used in preparation of Section 3.6 of the DEIR.

LAF-23 This comment is a copy of design details for the walkway referenced in **Comment LAF-18**.

From: Jill Mercurio [mailto:jmercurio@moraga.ca.us]
Sent: Monday, September 18, 2006 12:28 PM
To: Water Treatment Transmission Improvements Program
Cc: Manager; Lori Salamack; Jill Mercurio
Subject: Town of Moraga DEIR Comments

Dear Ms. Zavadil:

Town staff has reviewed the Draft EIR for the EBMUD Water Treatment and Transmission Improvements Program dated June 2006, and the Town has the following comments:

General comments:

The Town of Moraga Noise Ordinance restricts construction activities. Noise producing construction activities may occur between 8:00 a.m. and 5:00 p.m. In several locations the District is proposing construction starting at 7:00 a.m. Noise producing construction activities are prohibited by the Noise Ordinance at this hour. MOR-1

Grading permits will be required for any activity that has more than 50 CY of earthwork. Although mentioned in Table 2-13, encroachment permits will be required for any construction activities within the public right-of-way, regardless of the specific project. All construction activities will be monitored for proper sediment and erosion control measure implementation throughout the project. Any active construction sites during the wet weather season will be required to submit and follow all proper stormwater control, erosion control, SWPPP, NOI, and other applicable requirements. Additional charges will be levied for Town staff monitoring the plans in place during the wet weather season. Please coordinate these activities with Town staff during the planning stages of the projects. MOR-2

Hauling permits may be required depending on the amount of material to be removed. If required, the Town and District personnel will video the existing roadway conditions before and after the construction activities, and a fee will be based on the damage to the roadways. MOR-3

Page S-41 discusses Impact 3.10-1 Construction Noise, and Table 2-7 discusses expected construction work hours. The Town of Moraga has a Noise Ordinance that restricts construction noise to between 8:00 a.m. and 5:00 p.m. Please coordinate with the Town on activities to ensure that these noise restrictions are met. Similarly, work within the right-of-way is further restricted depending on location and time of year. MOR-4

Page 2-39, Figure 2-9 shows the trenchless technologies anticipated to be used at the Rheem Boulevard and Moraga Road intersection. Please coordinate with the Town on actual pit locations, work duration, and traffic controls. MOR-5

Page 2-68, Table 2-9 shows that the Moraga Road Pipeline is expected to start in April 2007, and have a duration of 1 to 2 years. As we have discussed with District staff, the Town of Moraga has received for a Surface Transportation Program (STP) Grant to assist with the repaving of Moraga Road between the Lafayette town line and Buckingham Drive. MOR-6

Our funding will be available in FY 2008-09, and we anticipate construction in the summer of 2009. This should dovetail nicely with your pipeline work, as long as your project stays on schedule. If your project must be delayed, we ask that you consider the fact that the Town will lose its funding if the work cannot start in the summer of 2009, and ask that you work with the Town to ensure this does not occur. MOR-6

Page 2-71 refers to Appendix B for construction sequencing, duration of specific construction activities, construction staffing, and parking information. Table B-FHPP-1, page B-18, discusses these items for the Fay Hill Pumping Plant work. I do not understand how mobilization will only have one worker vehicle per day, when worker vehicles consists of vehicles for trades, laborers, equipment operators, superintendent, foreman, and district inspector. Similarly for the other construction phases, I do not believe that the worker vehicle data is correct, and that more than one worker (or two, or three, depending on the phase) will be visiting the site each day. (Especially in light of the information presented in Table B-FHPP-2, which lists similar worker vehicles, but it totals to 13 per day.) MOR-7

Also, although the text on page 2-71 says that information on parking is presented, I do not see any information on where the District anticipates parking the vehicles and equipment while the construction in ongoing. The parking issue is also applicable to Table B-FHPP-2. MOR-8

Map C-FHPP-1 shows that a number of trees and shrubs may be removed or disturbed during the construction activities. Please coordinate with the Town during detailed planning for this work. MOR-9

Page 2-72 discusses construction activities at the Fay Hill Reservoir. The District is proposing to replace the existing open cut reservoir with two steel tanks. The existing facility is between 925 and 950 feet in elevation, and is not visible because it is an open cut with no appurtenances visible above ground. The proposed project will place tanks near a ridge line, with an elevation higher than the existing ground level, and the project will have visual impacts. The work is designated within the Moraga Open Space Ordinance (MOSO) area, which restricts construction activities within its boundaries. This project will be required to go through the appropriate Board/Commission/Council meetings to determine what is allowable within the MOSO area. MOR-10

Page 2-78 discusses construction activities at the Moraga Reservoir. The District is proposing to replace the existing open cut reservoir with a concrete tank with a domed roof. The existing facility is between 725 and 750 feet in elevation, and is not visible because it is an open cut with no appurtenances visible above ground. Table B-MORRES-1 shows only two worker vehicles per day during mobilization. Similar to the numbers for the Fay Hill projects, these seem unrealistic. The project proposes that worker vehicles park on the street due to site constraints. Please coordinate with Town staff during the planning phases of this work. MOR-11

Page 2-79 discusses the Moraga Road Pipeline work. Table 2-7 has construction in the roadways from 8:30 a.m. to 4:30 p.m. – these hours will not be acceptable during the Moraga Road pipeline work if school is in session. Please coordinate these hours with the Town when planning these work activities. MOR-12

Because of the disruptive nature of this work, coordination of work hours, school hours, pavement restoration, pipe alignment, and impacts with any other projects planned must be discussed in detail. MOR-13

Please confirm receipt of this email by 3:00 p.m. today.

Thank you,

Jill Mercurio

Public Works Director/Town Engineer

Town of Moraga

(925) 631-6844

jmercurio@moraga.ca.us

2.8 Jill Mercurio, Town of Moraga

MOR-1 The District will coordinate closely with the Town of Moraga (Town) to ensure consistency with the Town's Noise Ordinance to the extent feasible. Measure 3.10-1b has been revised in Section 3.2 of this Response to Comments document and provides further details for how noise-generating activities will be restricted and managed to reduce potential noise impacts for WTTIP projects constructed in the Town to less-than-significant levels. The intent is that noise-producing construction activities will generally occur only during the hours allowed by the local ordinance (except during critical water service outages or other emergencies and special situations). See also Section 2.1.3, Master Response on EBMUD Obligations to Comply with Local Ordinances, Obtain Local Agency Approvals and Permits, and Pay Local Agency Fees.

MOR-2 The proposed project requires that all water from or flowing from a job site shall be of such purity and cleanliness as not to introduce any contaminants into any watercourse, stream, lake, reservoir, or storm drain system. To meet this objective, construction contractors are required to provide plans, procedures, and controls related to the discharge of water and the control of storm water during construction. (See DEIR p. 3.5-20.) Table 2-13 indicates those projects requiring permits issued pursuant to the State Water Resources Control Board NPDES General Permit for Discharge of Stormwater and Contra Costa Flood Control District authorities.

Please also refer to Section 2.1.3, Master Response on EBMUD Obligations to Comply with Local Ordinances, Obtain Local Agency Approvals and Permits, and Pay Local Agency Fees for additional response pertinent to this comment.

MOR-3 The District would engage in discussions with the Town regarding authority to require a haul permit prior to the start of construction.

Major arterials and collector streets, such as Moraga Way, are designed to handle a mix of vehicle types, including heavy trucks. The project's impacts are expected to be negligible on those roads. Residential streets are generally not built to withstand substantial truck traffic volumes and could be adversely affected by heavy traffic. Measure 3.8-7 (DEIR p. 3.8-23) would mitigate this potential significant impact. The measure states that, "prior to project construction, road conditions will be documented for all routes that will be used by project-related vehicles. Road conditions will also be documented after project construction is completed. Roads damaged by construction will be repaired to a structural condition equal to that which existed prior to construction activity." EBMUD is also willing to discuss paying the Town a fee in lieu of repairing structural damage caused by construction.

Please also refer to Section 2.1.3, Master Response on EBMUD Obligations to Comply with Local Ordinances, Obtain Local Agency Approvals and Permits, and Pay Local Agency Fees for additional response pertinent to this comment.

MOR-4 As noted in **Response MOR-1**, above, the District will continue to coordinate with the Town on construction hours and working within public rights-of-way. See also Section 2.1.3, Master Response on EBMUD Obligations to Comply with Local Ordinances, Obtain Local Agency Approvals and Permits, and Pay Local Agency Fees, regarding compliance with local agency requirements.

MOR-5 During design EBMUD will coordinate with the Town regarding the location of the trenchless technology pits, preparation of a traffic control plan for the Contractor to refine and carry out, and provide estimates of the duration of the work. Please also refer to Section 2.1.3, Master Response on EBMUD Obligations to Comply with Local Ordinances, Obtain Local Agency Approvals and Permits, and Pay Local Agency Fees for additional response pertinent to this comment.

MOR-6 The Town's planned project to repave Moraga Road between the City of Lafayette boundary and Buckingham Drive beginning in the summer of 2009 has been added to Table 5-1 and Figure 5-1 (Revised Table 5-1 and Revised Figure 5-1 in this Response to Comments document). As stated on DEIR p. 5-38, the District has initiated coordination with other agencies regarding the timing of construction projects, and the District will endeavor to keep the Moraga Road Pipeline project on schedule and to coordinate with the Town.

Please also refer to Section 2.1.3, Master Response on EBMUD Obligations to Comply with Local Ordinances, Obtain Local Agency Approvals and Permits, and Pay Local Agency Fees for additional response pertinent to this comment.

MOR-7 The pumping plant rehabilitation includes the replacement of the pumps within the same structure; thus, mobilization is assumed to be minimal (i.e., field measurements by superintendent or foreman and possible delivery of pumping equipment). Otherwise, field crews are not anticipated to show up until site work begins in the following weeks.

It needs to be understood, however, that the analysis of potential traffic and circulation impacts in the DEIR is unaffected by the trip generation estimate for the construction of the Fay Hill Pumping Plant. As described on DEIR p. 3.8-10, the analysis focuses on the maximum number of daily and hourly vehicle trips during the construction of each facility (in this case, during construction of the Fay Hill Pipeline). Lower trip-generating tasks like those associated with the Fay Hill Pumping Plant would have less impact than those described.

MOR-8 The commenter is correct that there is no parking information on Tables B-FHPP-1 and -2. However, DEIR p. 2-71 states, "The District proposes to use the parking lot

adjacent to the pumping plant site for construction staging and construction vehicle parking." Parking for the pipeline alignment is discussed on DEIR p. 3.8-19. As shown in Table 3.8-1, on street parking is not permitted on Rheem Boulevard between Chalda Way to the reservoir access road. In addition, Measure 3.8-1 (DEIR p. 3.8-13) requires the contractor to submit a traffic safety plan as part of the encroachment permit process that "identifies locations for parking by construction workers (within the construction zone or, if needed, at a nearby location with transport provided between the parking location and the worksite)." EBMUD will coordinate with Town staff during the development of the construction documents.

MOR-9 As stated in Measure 3.3-2a (DEIR p. 3.3-35), the District will consult with the appropriate jurisdiction (i.e., the Town) when developing final landscaping plans. See also Section 2.1.3, Master Response on EBMUD Obligations to Comply with Local Ordinances, Obtain Local Agency Approvals and Permits, and Pay Local Agency Fees, regarding compliance with local agency requirements.

MOR-10 The comment indicates that the proposed project at Fay Hill Reservoir would have visual impacts and would require approval to be located within the Moraga Open Space Ordinance area.

As described in the DEIR p. 2-72, the proposed design for the new Fay Hill Reservoir calls for two cylindrical steel tanks with low-profile dome roofs to be located in the footprint of the existing reservoir. The commenter notes that the tanks would be located near a ridge line, and have a height that exceeds existing ground level. As characterized by Map D-FHRES-2 in the DEIR, the height differential would be approximately 10 feet at the highest point of the tanks. Note that the roof of the existing reservoir extends approximately ten feet above ground level and is hardly visible from distant viewpoints (see DEIR Figure 3.3-FHRES-2). A perimeter of pine trees largely shields the site from view. The pine trees would be thinned, but as shown in visual simulations in DEIR Figure 3.3-FHRES-3 of the DEIR, this change would not substantially affect views from the surrounding area. EBMUD would also work with Town staff to ensure that the tanks blend in with the natural environment.

The Moraga Open Space Ordinance (MOSO) designation, identified in Table 3.2-1 (DEIR p. 3.2-2), is part of the planning and zoning ordinances of the Moraga Municipal Code. EBMUD is not subject to building and land use zoning ordinances of cities and counties when implementing projects that involve the storage, treatment, or transmission of water (California Government Code Sections 53091 and 53095). It is, however, EBMUD's custom to work closely with host jurisdictions during project planning and to conform to local land use plans and policies to the extent possible. As acknowledged on DEIR p. 3.2-12, the pertinent land use jurisdictions would determine project consistency with general plans during implementation. Please also refer to Section 2.1.3, Master Response on EBMUD Obligations to Comply with

Local Ordinances, Obtain Local Agency Approvals and Permits, and Pay Local Agency Fees for additional response pertinent to this comment.

MOR-11 Mobilization for the Moraga Reservoir project would involve equipment set-up staging for demolition activities, requiring few vehicle trips. It needs to be understood, however, that the analysis of potential traffic and circulation impacts in the DEIR is unaffected by the trip generation estimate for the mobilization phase for construction of the Moraga Reservoir facility. As described on DEIR p. 3.8-10, the analysis of potential impacts focuses on the maximum number of daily and hourly vehicle trips during the construction of each facility. Impacts during other tasks (like the mobilization phase) would be less than those described.

Please also refer to Section 2.1.3, Master Response on EBMUD Obligations to Comply with Local Ordinances, Obtain Local Agency Approvals and Permits, and Pay Local Agency Fees for additional response pertinent to this comment.

MOR-12 EBMUD will work with the Town to ensure that pipeline construction does not compromise safety while school is in session. Work hours specified in Table 2-7 are imperative to achieve the goal of no adverse Moraga repaving program impacts (see MOR-6). Please also refer to Section 2.1.3, Master Response on EBMUD Obligations to Comply with Local Ordinances, Obtain Local Agency Approvals and Permits, and Pay Local Agency Fees for additional response pertinent to this comment.

MOR-13 EBMUD will continue to coordinate with the Town regarding project construction details and will work with the Town to ensure that pipeline construction does not compromise safety while school is in session, and to minimize disruption. All EIR mitigation measures will be incorporated into the project and coordinated with Moraga during both design and construction phases. Please also refer to Section 2.1.3, Master Response on EBMUD Obligations to Comply with Local Ordinances, Obtain Local Agency Approvals and Permits, and Pay Local Agency Fees for additional response pertinent to this comment.

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September 11, 2006

WATER DISTRIBUTION
SEP 12 2006
PLANNING DIVISION

Judy Zavadil, Senior Project Manager
East Bay Municipal Utility District
MS #701
375 Eleventh Street
Oakland, CA 94607-4240

Re: Water Treatment and Transmission Improvements Project Draft Environmental Impact Report

Dear Ms. Zavadil:

This firm represents the City of Orinda in matters related to the Water Treatment and Transmission Improvements Program ("WTTIP" or "Project") proposed by the East Bay Municipal Utility District ("EBMUD"). This letter, in conjunction with the attached reports and exhibits, all of which are incorporated as if fully set forth herein, provides the City of Orinda's comments on the Draft Environmental Impact Report ("DEIR") for the Project.[1]

ORIN-1

Elected officials and community members from the City of Orinda have expressed serious concerns with the impact of the Project on the City's residents and neighborhoods. Orinda bears a disproportionate share of the burden of treating and distributing drinking water in the East Bay region; according to one estimate, only five percent of the water treated in Orinda is actually consumed by the City's residents.

Because either of the Project's main alternatives would require Orinda to shoulder an even greater burden in the future, City officials and residents alike have looked to the DEIR for a clear and compelling description of why the Project is needed and what can be done to avoid severe community disruption during and after construction. Unfortunately, the DEIR fails

ORIN-2

[1] A geotechnical review prepared by Darwin Myers Associates is attached as Exhibit 1. Additional comments on various sections of the DEIR, prepared by Orinda's City Engineer, are attached as Exhibit 2.

ORIN-1

to explain clearly why the Project is necessary. Nor does the DEIR adequately consider alternative sites or nationally recognized alternative technologies that could help avoid the serious impacts on the City of Orinda and its residents that would result from implementation of either Project alternative. ORIN-2

For these reasons, the City of Orinda cannot support either Alternative 1 or Alternative 2. Traffic congestion, road closures, noise, visual blight, and community disruption from projects throughout the City would be largely the same under either alternative. The DEIR thus should be revised to include consideration of real alternatives that will not increase the burden on Orinda. There may be other feasible locations for expanding the capacity of EBMUD's water treatment and distribution system. There are almost certainly other feasible treatment technologies that would enable EBMUD to maintain compliance with applicable regulations without subjecting the community to serious disruptions. In short, neither Alternative 1 nor Alternative 2 offers much of an "alternative" for Orinda. ORIN-3

That said, the City views Alternative 2 as clearly unacceptable. Decommissioning the Lafayette Water Treatment Plant raises serious public health and safety concerns. In previous projects, including the recent reduction of water levels in San Pablo Reservoir, EBMUD has cited redundancy as an essential factor in protecting the water distribution system from seismic disruption. The same concerns should apply to the Project under consideration here. It would be dangerous to concentrate water treatment and distribution operations in Orinda, which lies much closer to the Hayward Fault, without redundant capacity elsewhere in the system to provide water for drinking and firefighting after an earthquake. Seismic concerns aside, the Lafayette site is more appropriate for this type of industrial facility due to its distance from residential neighborhoods; significant expansion of the Lafayette site will be far less disruptive to neighbors and residents than would similar expansion of the Orinda site. ORIN-4

The City of Orinda is also concerned about the environmental impacts of the proposed Orinda WTP modifications, the Orinda-Lafayette Aqueduct (the "Aqueduct"), and Project elements proposed for construction in other parts of Orinda. As detailed below, the DEIR fails to adequately disclose or analyze the significant environmental impacts of the Project, and also fails to provide adequate mitigation for the impacts it does identify. Moreover, the DEIR does not contain sufficient information about the Project's components, its growth-inducing and cumulative effects, and the feasibility of alternatives to permit a reasoned and informed decision. As a result, the DEIR fails to meet the standards set forth in the California Environmental Quality Act ("CEQA"; Pub. Res. Code § 21000 et seq.) and the CEQA Guidelines (tit. 14, Cal. Code Regs., § 15000 et seq.). The DEIR must be revised and recirculated before any action may be taken on the Project or any of its component parts. ORIN-5

I. The DEIR Does Not Adequately Describe the Project.

Under CEQA, the inclusion in the EIR of a clear and comprehensive description of the proposed project is critical to meaningful public review. County of Inyo v. City of Los Angeles, 71 Cal. App. 3d 185, 193 (1977) (Inyo II). The court in Inyo II explained why a thorough project description is necessary:

> A curtailed or distorted project description may stultify the objectives of the reporting process. Only through an accurate view of the project may affected outsiders and public decision-makers balance the proposal's benefit against its environmental cost, consider mitigation measures, assess the advantage of terminating the proposal (i.e., the "no project" alternative) and weigh other alternatives in the balance.

ORIN-6

Id. at 192-93. Thus, "[a]n accurate, stable and finite project description is the sine qua non of an informative and legally sufficient EIR." Santiago County Water District v. County of Orange, 118 Cal. App. 3d 818, 830 (1981).

Although the DEIR's project description is an improvement over the list of actions presented in the Notice of Preparation, it is still insufficient. Neither "project-level" nor "program-level" actions are described in enough detail to support informed decision-making. Moreover, the DEIR does not clearly or consistently correlate the Project's numerous objectives and purposes with its several elements. Instead, the DEIR describes a number of purposes and objectives, and a number of potentially interrelated actions, at a vague and general level that does not permit the decision-maker to undertake an informed balancing of benefits and environmental costs.

A. The DEIR's Descriptions of "Project-Level" Actions are Confusing and Lack Necessary Detail.

Under both principal variations of the Project, the description of the actions analyzed at a "project level" of detail in the DEIR is confusing and incomplete.[2] The planned

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[2] The DEIR analyzes two principal Alternatives. Alternative 1 calls for modifications to both the Orinda WTP and the Lafayette WTP, and would continue to serve customers with water from both plants. Under Alternative 2, EBMUD would decommission the Lafayette WTP and shift the burden of serving the Lafayette WTP's customers to the Orinda WTP. Accordingly, Alternative 2 would require far more extensive modifications to the Orinda WTP, as well as construction of a tunnel and pipeline from the Orinda WTP to the Lafayette WTP. Both Alternatives encompass numerous additional actions, including several discussed in detail in this letter: the Happy Valley Pumping Plant and Pipeline, the Ardith Reservoir/Donald Pumping

ORIN-7

capacity of the Orinda WTP under both Alternatives provides a case in point. In its description of Alternative 2, the DEIR states that the Orinda WTP "would produce 175 mgd (average-annualized rate), but would operate at the slightly higher rate of 180 mgd, an increase of 5 mgd over existing conditions. (It would also operate at this slightly higher rate under Alternative 1 during peak demand periods.) " (DEIR at 2-59.) The DEIR does not explain how the plant could "operate" at a rate of 180 mgd but only "produce" 175 mgd. Nor does it clearly explain whether any difference between the Alternatives in this respect is a matter of design, or just one of operation. The DEIR's discussion of Alternative 1 does not mention any increase in capacity during peak demand periods or otherwise. (See DEIR, § 2.4.3, at 2-42 to 2-47.) Indeed, the Orinda WTP currently produces 175 mgd. (See DEIR at 2-18 (Table 2-4).) As a result, it is not clear whether the Project entails increasing capacity at the Orinda WTP, nor whether that increase will take place only during peak demand periods. It is also unclear whether the Alternatives differ in this respect. Such basic information about the Project must be presented more clearly.

ORIN-7

The DEIR's complex organization also forces readers to cross-reference between multiple sections and volumes in order to obtain a complete description of any particular Project element. The discussion of capacity (see above) is a case in point; the information about possible increased capacity at the Orinda WTP under Alternative 1 is provided in a parenthetical statement under the description of Alternative 2. Another example is the backwash recycle system proposed for the Orinda WTP under both Alternatives. For a description of Alternative 1, a reader must consult all of the following: (1) section 2.4.3, for a description of the improvements proposed under Alternative 1; (2) Figure 2-7, for "descriptions of the facilities and processes described" in section 2.4.3; (3) Table 2-6, for a "proposed schedule for design and construction" of the project-level upgrades; (4) Table 2-7, for "proposed work hours"; (5) Table B-OWTP-1, in a separate volume, for "construction sequencing, duration of specific construction activities, construction staffing, and parking information"; and (6) Map D-OWTP-1, for a visual representation of the project-level and program-level components of the Alternative. (See DEIR at 2-43.) This confusing organizational approach is characteristic of virtually every action discussed in the DEIR. The need for extensive cross-referencing limits the usefulness of the DEIR as an informational document, and thus undermines CEQA's core purpose.

ORIN-8

B. The DEIR Does Not Clearly Explain the Need for the Project.

The DEIR lists a number of goals, needs, and purposes for various components of the Project, yet these needs and purposes generally do not correspond to particular Project components. Without a clear indication that the Project is necessary, decision-makers will be unable to balance the substantial environmental disruption caused by the Project against its

ORIN-9

Plant, the Sunnyside Pumping Plant, and the San Pablo Pipeline.

ORIN-7

benefits. This lack of correlation between the Project and its purposes renders the DEIR deficient as an informational document. ORIN-9

1. The DEIR's Discussion of Purpose and Need is Vague and Contradictory.

The DEIR suggests in the vaguest of terms that aspects of the Project are necessary to comply with state and federal regulations.[3] For example, the DEIR states that flocculation and sedimentation treatment of raw water at the in-line plants, including the Orinda WTP, "may eventually be needed" in order to comply with the federal Long-Term 2 Enhanced Surface Water Treatment Rule. (DEIR at 2-20.) Similarly, a chlorine contact basin is "potentially" required by the Stage 2 Disinfectants/Disinfection Byproducts Rule. (Id.) The DEIR does not explain what might "eventually" occur to make these "potential" requirements into actual requirements. Are the regulations themselves expected to change further? Will aspects of this Project result in a change in source water quality that might require changes in treatment? The DEIR does not answer these questions. As a result, the public and decision-makers can only speculate as to whether many of the long-term actions evaluated in the DEIR will ever be necessary. ORIN-10

Table 2-3, which purports to summarize the need addressed by each specific water treatment improvement action, contradicts the text of the DEIR. For example, Table 2-3 states that the backwash system is necessary to comply with federal Surface Water Treatment Rules and the state Cryptosporidium Action Plan. (DEIR at 2-17.) A few pages later, however, the DEIR cites the federal Surface Water Treatment Rule in support of high-rate sedimentation processing at the Orinda WTP, without mentioning the backwash system. (DEIR at 2-20.) The California Cryptosporidium Action Plan requires backwash systems at the Walnut Creek and Lafayette WTPs because they discharge backwash into the Lafayette Aqueducts that supply the Orinda WTP; nowhere does the DEIR say that a backwash system at the Orinda WTP is required under the Action Plan. (See id.) Instead, the DEIR says the backwash system is required to address violations of the NPDES permit. (DEIR at 2-21.) Similarly, Table 2-3 states that the proposed clearwell, pipeline, pumping plant, and electrical substation are necessary to address the requirements of the state NPDES permit for the Orinda WTP. (DEIR at 2-17.) The NPDES permit is not cited, however, as requiring installation of a clearwell, pipeline, pumping plant, or electrical substation; rather, the need for these proposals is described as stemming from either ORIN-11a

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[3] The DEIR lacks a clear summary of federal and state regulations governing EBMUD's water treatment and distribution activities. The purpose and need section mentions some applicable regulations in general terms, but does not contain specific citations or information about which state or federal agencies are responsible for determining compliance. A section clearly explaining the regulatory scheme governing EBMUD's operations, and identifying the agencies responsible for its enforcement, would be extremely helpful to both the public and decision-makers in evaluating the need for particular Project components. ORIN-10

water demand requirements or infrastructure upgrades. (See DEIR at 2-14, 2-21 to 2-22.) As a result of these contradictions, the DEIR fails to explain clearly why any of these project components are necessary. ORIN-11a

The DEIR not only inadequately explains the need for the backwash recycling system proposed for the Orinda WTP under both Alternatives, but also fails to address potential impacts of, and alternatives to, installing this system. Although returning treated backwash water to the head of the plant could help conserve water currently discharged to San Pablo Creek, such an approach poses a certain risk of recycling solids and Crytosporidium. ORIN-11b Furthermore, the DEIR must analyze any secondary impacts to San Pablo Creek associated with eliminating current backwash discharges. ORIN-12 The DEIR also should acknowledge that conservation benefits may be limited, insofar as any discharged water would ultimately flow into San Pablo Reservoir. ORIN-13 The DEIR should analyze these risks and compare the relative benefits and drawbacks to those of alternative improvements to the current system. Such alternatives might include additional treatment, such as the use of ultraviolet light in the primary treatment train, or improvements to the reliability of existing equipment. By way of example, ultraviolet disinfection could require a smaller footprint than the proposed backwash facility, allow EBMUD to reduce its use of chloramine, and possibly eliminate the need for additional clearwells at the Orinda WTP. ORIN-14

Nor does the DEIR clearly explain why particular distribution system improvements—namely the new pumping plants, pipelines, and reservoir proposed for locations in Orinda—are necessary. Table 2-3 contains only a single reference to the entire "Distribution System," and then identifies several general reasons why improvements to this system are necessary. (DEIR at 2-17.) Other potential justifications for these improvements scattered throughout the document are stated in similarly general terms. Nowhere, however, does the DEIR explain in one coherent passage how the various Project components are interrelated, why they are all necessary under both alternatives, and whether there are any alternatives that would fulfill the Project objectives. Without any correlation between particular improvements and relevant needs, it is impossible for decision-makers or the public to determine why these improvements are necessary. The DEIR should be revised to present this information in a clear, meaningful, and unified form. ORIN-15

Finally, it is not clear how constructing the proposed clearwells at the Orinda WTP would improve water quality as compared to continuing to use the reservoirs west of the hills (the primary service area for water treated at the Orinda WTP). The capacity of the "project-level" clearwell under Alternative 2, 9.8 mg, represents about 5% of treatment capacity; this clearwell thus would provide only limited capability in the management of poor water quality during plant upsets. Information should be provided on the frequency of upsets that have resulted in water quality not meeting drinking water regulations. It is also not clear how this clearwell—which would add to already existing storage capacity—would reduce the age of ORIN-16

water in the distribution system. If deterioration of water quality over time is a significant problem in reservoirs west of the hills, then additional or retrofit of the storage reservoirs and changes in operation may be more effective in addressing this problem. These same concerns apply to the "program-level" clearwell proposed for the Orinda Sports Fields. Again, the use of this larger capacity clearwell would only add to the time that water is retained in the system and subject to deterioration. ORIN-16

As a result of these omissions and contradictions, the DEIR fails one of its most basic purposes: explaining why the project is necessary.

2. The Project Does Not Provide the Additional Treatment and Distribution Capacity Necessary to Meet the DEIR's Stated Goals.

Although the DEIR identifies "existing capacity deficiencies" and anticipated future needs as driving the need for theProject, the Alternatives considered do not address these concerns. Table 2-4 makes clear that capacity at the Orinda WTP is already sufficient to meet forecast demand capacity in 2030. (DEIR at 2-18.) Table 2-3, summarizing the needs addressed by specific Project actions, does not identify "demand" as a reason for any change proposed at the Orinda WTP. Moreover, although the DEIR is less than clear on this point, it appears that neither Alternative will actually expand capacity at the Orinda WTP beyond 180 million gallons per day ("mgd"), and no changes to the treatment process are planned to facilitate any expanded capacity. (See DEIR at 2-59.) ORIN-17

In this context, Alternative 2—decommissioning the Lafayette WTP—would not appear to achieve the DEIR's stated goals. According to the DEIR, the Lafayette WTP's current 25 mgd capacity is insufficient to meet current peak demands, which have reached 31 mgd, as well as projected future needs approaching 34 mgd. (See DEIR at 2-18 (Table 2-4).) Yet Alternative 2 proposes to shift all of that demand to the Orinda WTP *without any corresponding increase in capacity*. (See DEIR at 2-14 ("Under Alternative 2, the Orinda WTP would meet this need.").) At most, the Orinda WTP under Alternative 2 would produce 180 mgd. (DEIR at 2-59.) Current capacity, and projected future demand, are both 175 mgd. (DEIR at 2-18 (Table 2-4).) The DEIR does not identify any source for the additional 30 mgd necessary to replace water from the Lafayette WTP.[4] ORIN-18

[4] Improvements to the Walnut Creek and Sobrante WTPs—which would be the same under either Alternative—are not identified as sources of this extra capacity. (See DEIR at 2-18 (Table 2-4); 2-47 to 2-53.) Nor does the DEIR quantify any proposed increase in capacity at these two WTPs.

II. The DEIR's Analysis of "Program-Level" Actions is Inadequate.

The DEIR states that it is intended to serve as both a project and a program EIR. (See, e.g., DEIR at 3.1-2 to 3.1-3.) This is not, however, a typical program EIR, from which later analysis of specific projects will be tiered. Instead, the DEIR uses the terms "project" and "program" to distinguish between actions EBMUD actually proposes to undertake and other "potential future actions that may or may not be necessary depending on future circumstances." (DEIR at 3.1-2.) Thus the "program-level" analysis in the DEIR does not address a *program*; instead, it addresses specific *projects*, but only in a superficial manner.

The DEIR's approach is inconsistent with CEQA. The degree of specificity required in an EIR varies not with the label assigned to the EIR, but rather with the degree of specificity involved in the underlying activity. (CEQA Guidelines § 15146; Friends of Mammoth v. Town of Mammoth Lakes Redev. Agency (2000) 82 Cal.App.4th 511, 533 ("Designating an EIR as a program EIR . . . does not by itself decrease the level of analysis otherwise required in the EIR.").) The activities evaluated at a "program" level in the DEIR are not "programs" within the meaning of the CEQA Guidelines. (See CEQA Guidelines § 15168 (authorizing program EIR for evaluation of "a series of actions that can be characterized as one large project").) For example, "program" activities identified in the DEIR include construction of two clearwells, a low-lift pumping plant, and an electrical substation in specific locations at the Orinda WTP. (DEIR at 2-44, 2-47; Map D-OWTP-1.) Another "program" activity involves construction of a pipeline along San Pablo Dam Road and improvements to the San Pablo Tunnel. (DEIR at 2-86 to 2-87; Map B5.) These are specific activities; CEQA requires that they be analyzed with specificity. The term "program" may not be invoked as an excuse for inadequate analysis of *projects*.

ORIN-19

To the extent that EBMUD intends the DEIR to function as a program EIR for the entire Project, its environmental review of the Project as a whole and its individual components must still be meaningful. Program EIRs usually address broad planning documents, such as general plans, that then provide a framework for later analysis of specific projects. Even in those cases, the courts have required program EIRs to provide detailed analysis of known and foreseeable issues. (See, e.g., Friends of Mammoth, 82 Cal.App.4th at 535 (Town's failure to analyze "each proposed project, to the extent information was known or reasonably could have been known about each project, constituted a failure to proceed in the manner required by CEQA"); City of Carmel-by-the-Sea v. Board of Supervisors (1986) 183 Cal.App.3d 229, 249, 253 (EIR for general rezoning must address the "specific environmental effects arising from the rezoning, . . . substitut[ing] some degree of factual certainty for tentative opinion and speculation"); Envt'l Planning and Info. Council v. County of El Dorado (1982) 131 Cal.App.3d 350, 358 (holding that a general plan EIR must include "extensive detailed evaluations of the impacts of the proposed plans on the environment in its current state," or it "fail[s] as an informative document").) This DEIR similarly fails to provide the required analysis.

ORIN-20

The DEIR does not contain a meaningful "program-level" evaluation of the Project. The DEIR does not describe the Project as an integrated whole, nor does it address the overall impacts of Project approval. Instead, it focuses primarily on specific projects, the effects of which are addressed at levels of detail having more to do with EBMUD's planning process than with the requirements of CEQA. Analysis of specific Project components on a case-by-case level is not a substitute for programmatic, overarching analysis. By the same token, the DEIR's brief discussion of these individual Project components' "collective" impacts, presented as a subset of the cumulative impacts analysis (see DEIR at ch. 5.2), is also an inadequate replacement for true "program-level" assessment of the Project's broader implications. ORIN-21

The DEIR's cursory discussion of speculative "program-level" Project components contributes to the document's confusing organization and undermines its coherency. Moreover, these "program-level" analyses are so lacking that EBMUD will essentially have to start the CEQA process anew for each future action. (See CEQA Guidelines § 15168(b), (c).) This duplication of effort defeats many of the advantages offered by a program EIR. ORIN-22

In addition, as detailed throughout this letter, many of the DEIR's "project-level" discussions suffer from the same inadequate level of analysis as the "program-level" discussions. In short, the DEIR fails to provide enough information for decision-makers or the public to make informed "project-level" decisions. ORIN-23

III. The DEIR Does Not Adequately Disclose, Analyze, or Mitigate the Project's Potentially Significant Environmental Impacts.

An EIR must be detailed and complete, and must reflect a good faith effort at full disclosure. (CEQA Guidelines § 15151.) The document should provide a sufficient degree of analysis to inform the public about the proposed project's adverse environmental impacts and to allow decision makers to make intelligent judgments. (Id.) In reviewing the legal sufficiency of environmental review documents, the courts have emphasized that an EIR must support with rigorous analysis and substantial evidence the conclusion that environmental impacts will be insignificant and will be adequately mitigated. (Kings County Farm Bureau v. City of Hanford (1990) 221 Cal.App.3d 692.) As set forth below, the DEIR fails to comply with these standards. ORIN-24

A. The DEIR Inadequately Analyzes and Mitigates Land Use Impacts.

The DEIR combines three topics—land use, agriculture, and recreation—that typically are analyzed separately into one "Land Use, Planning, and Recreation" section. This section does not adequately address the Project's potentially significant conflicts with land use policies or neighboring land uses. ORIN-25

1. Thresholds of Significance Identified in the DEIR are Incomplete and Inadequate.

The DEIR fails to identify, and evaluate as potentially significant impacts, a number of potential conflicts with local land use plans, policies, and regulations. The CEQA Guidelines establish a threshold of significance for projects that conflict with plans, policies, and regulations of "a local agency with jurisdiction over the project" that were adopted for the purpose of avoiding or mitigating environmental impacts. (CEQA Guidelines, App. G, § IX(b).) Although the DEIR cites Appendix G as a source of thresholds of significance, this particular threshold is not discussed.[5]

Omission of this threshold is inappropriate under CEQA. A number of local agencies have jurisdiction to issue discretionary approvals for the Project. (See DEIR at 2-91 (Table 2-13).) Those decisions must be consistent with local general plans. (See Neighborhood Action Group v. County of Calaveras (1984) 156 Cal.App.3d 1176, 1182-86.) The DEIR describes a number of potential conflicts with dozens of local land use policies, most of which were plainly adopted for environmental purposes, and states that "actual determinations of project consistency" will be made by local jurisdictions "during project implementation." (See DEIR at 3.2-13.) These conflicts, however, are not merely problems to be addressed "during project implementation" by local agencies, but also potentially significant environmental impacts that must be disclosed, analyzed, and mitigated *by the lead agency* prior to project approval.

ORIN-26

2. The DEIR Fails to Disclose and Analyze a Potentially Significant Land Use Conflict at the Sunnyside Pumping Plant Site.

The City of Orinda is concerned that construction of the proposed Sunnyside Pumping Plant could result in a specific land use conflict. According to the DEIR, the privately owned parcel on which the Sunnyside plant would be constructed is surrounded by low-density residential uses and open space. (DEIR at 3.2-11.) The DEIR does not disclose, however, that the "open space" adjacent to the proposed site—and across which the access road for the site runs—is a parcel that was dedicated for preservation as a condition of the City's approval of the Orinda Downs subdivision. The adjoining landowner built and paved an access road across this dedicated open space area without permission from the City. It is the City's understanding that EBMUD now proposes to use some portion of this illegal road to construct and access the new Sunnyside plant. This is a potentially significant land use conflict that must be disclosed, analyzed, and mitigated in the DEIR.

ORIN-27

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[5] Other sections of the DEIR explicitly incorporate local standards as thresholds of significance. (See, e.g., DEIR at 3.6-23 (local tree protection ordinances), 3.10-5 (local noise ordinances).) This approach should be applied consistently throughout the DEIR.

ORIN-26

B. The DEIR Inadequately Analyzes and Mitigates Impacts Related to Aesthetics and Visual Resources.

The DEIR does not properly account for either the short-term or long-term visual impacts of the various elements of the Project. Critical analyses and visual representations are missing, making it impossible to evaluate the DEIR's conclusions. (See Oro Fino Gold Mining Corporation v. County of El Dorado, 225 Cal.App.3d 872, 885 (1990).) The DEIR also fails to consider the significance of short-term construction-related visual impacts. (See CEQA Guidelines § 15126.2(a).) As a result, this section of the DEIR is not supported by substantial evidence and does not reflect a good-faith effort at full disclosure of impacts. In these respects, the DEIR violates CEQA. ORIN-28

1. The DEIR Does Not Adequately Analyze Conflicts With Local Plans and Policies Regarding Visual Resources.

The DEIR states that a number of factors, including "conformance with public policies regarding visual quality," guided significance determinations for the Project's visual impacts. (DEIR at 3.3-17.) The DEIR does not explain in detail how these factors were evaluated, however, and generally omits any specific discussion of local scenic policies. ORIN-29

The Camino Pablo corridor, for example, is designated in the City of Orinda's General Plan as a scenic corridor. (Orinda General Plan, Circulation Element, § 2.3.2, Implementing Policies P, Q, R, & S.) The DEIR acknowledges this designation (DEIR at 3.3-5; App. D at D-27), but does not analyze impacts in terms of the applicable policies and standards for scenic corridors. These local scenic resources policies should be considered in a manner that the public and decision-makers can understand and intelligently review.

2. The DEIR Inappropriately Discounts Potentially Significant Construction-Related Visual Impacts.

The DEIR's discussion of construction-related visual impacts is cursory and conclusory. The document lacks any site-specific analysis of particular construction projects. It also fails to explain its conclusion that all construction-related impacts will be less than significant. Nor does the DEIR explain how or whether the existing level of development at any particular location affects the determination of significance. This lack of analysis and support undermines the document's informational purpose. ORIN-30

At best, the DEIR suggests that these impacts are all less than significant because they are all temporary. (DEIR at 3.3-23.) This conclusion is not supported by the information in the DEIR. While all of the construction projects are "temporary," many are expected to last for several years. (See, e.g., DEIR at 2-58 (Table 2-8) (estimating four to six years for construction

of Alternative 2 project-level improvements at Orinda WTP, and two to three years for construction of the Aqueduct).) Similarly, pipeline projects through residential neighborhoods, such as the Happy Valley pipeline project, will take more than a year to complete. (DEIR, App. B, at B-23 (Table B-HVPP-2).) Notably, the duration of an impact is not a factor set forth in either the CEQA Guidelines or the DEIR itself for determining the significance of a visual impact. (See CEQA Guidelines, App. G, § I; DEIR at 3.3-17.) Indeed, an EIR must "giv[e] due consideration to both the short-term and long-term effects" of a project. (CEQA Guidelines § 15126.2(a).) The DEIR thus fails to support its conclusion that any of these impacts will be less than significant.

Construction of the Aqueduct under Alternative 2 illustrates the potential for significant construction-related impacts. Map D-OLA-1 contains a photograph of a "typical tunnel entry shaft construction site," showing a crane and several tall above-ground structures in addition to the shaft itself; Map D-OLA-3 confirms that such structures will likely be present during construction of the Aqueduct. Construction of the tunnel will proceed 24 hours per day, seven days per week, and the construction site will be illuminated at night. (DEIR at 2-36 (Table 2-7), 3.3-47.) While the DEIR contains three photographs of existing conditions at the Orinda Sports Fields (see Figure 3.3-OWTP-4), one of which (O10) purports to show the tunnel entry site, the document contains no simulated representation of what the site would look like during construction, no landscaping plan, no discussion of the area's potential visibility from the Camino Pablo scenic corridor or local residential areas, and no other information that would enable an informed decision concerning visual impacts of construction that could affect the City of Orinda for more than two years. These omissions undermine the document's informational purpose. ORIN-30

The DEIR also does not reveal whether night lighting would be required during dewatering phases at other construction sites (specifically the clearwells and backwash basins at the Orinda WTP and the Happy Valley pipeline near Lauterwasser Creek). The DEIR should be revised to include an analysis of these construction impacts and appropriate mitigation measures. ORIN-31

3. The DEIR Does Not Adequately Disclose or Mitigate Long-Term Visual Impacts.

In general, the DEIR's visual impacts analysis is incomplete and misleading. Visual simulations are either omitted entirely from the DEIR or not representative of how the facilities will actually appear to the public. Due to these omissions and misrepresentations, Orinda residents who have examined this portion of the DEIR have come away with the opinion that the document is deliberately misleading. The City strongly suggests that EBMUD attempt to remedy this situation by providing additional information regarding visual impacts, including complete and detailed vegetation plans, tree markings, and story poles for all physical structures ORIN-32

(including tanks, fences, and other improvements). Specific deficiencies are discussed in greater detail below. ORIN-32

Orinda WTP (Alternative 1)

Buildings associated with the backwash recycle system will be visible from Camino Pablo, even following landscaping treatment modeled in the DEIR. Although the DEIR claims that the architectural treatments for these buildings will be consistent with existing structures, it does not address other elements of the Orinda General Plan's policies for scenic corridors, such as the requirement that the natural environment be maintained as the "dominant visual element." (See DEIR, App. D, at D-27.) This may constitute a significant impact for many years, even after mitigation. ORIN-33

The DEIR's description of the buildings also contains an apparent error. The building housing the proposed solids pumping plant for the backwash recycle system is described as 16 feet tall, but only 35 square feet in area. This seems implausible, and contradicts visual representations showing a much larger structure. (Compare DEIR at 3.3-26 with Map D-OWTP-1.) These descriptions should be made consistent. ORIN-34

Orinda WTP (Alternative 2)

The DEIR does not adequately analyze the project-level actions proposed under Alternative 2, particularly the clearwell, pumping plant, and electrical substation proposed for the area north of Manzanita Drive. The DEIR contains one photograph showing current conditions at this location (Figure 3-3-OWTP-3, Photo O7), but does not include a simulation of post-Project conditions. Nor does the DEIR contain any representation of how these structures will appear at grade level. The DEIR claims that Figure 3.3-OWTP-5 will serve as the "conceptual landscaping plan" for this area. (DEIR at 3.3-26.) That plan, however, does not even depict the area containing the project-level improvements under Alternative 2. The only map showing this area is a large-scale aerial photograph that conveys little useful ground-level information; this photograph nonetheless reveals that the small amount of vegetation that might currently screen views along Manzanita Road is proposed for removal. (See Map C-OWTP-2.) As a result, there is nothing in the DEIR to support the conclusion that visual impacts at this location will be less than significant after mitigation. ORIN-35

Ardith Reservoir/Donald Pumping Plant

The DEIR entirely fails to disclose visual impacts on residents downhill from the Reservoir and pumping plant, particularly the residences on Lavina Court and Leslee Lane. There are no visual representations or viewpoints provided in the DEIR showing either current conditions or simulated future views from these locations. As a result, the DEIR provides no ORIN-36

basis for analysis of these impacts. Other simulated photographs of both existing and future conditions at the Ardith Reservoir site (see Figs. 3.3-ARRES-6, 7), showing views from along Ardith Drive, are potentially misleading. The viewpoint of the simulated photograph showing future conditions after landscaping is so close to the edge of the site that the effectiveness of the screening from other locations is difficult to discern. Photo A6 (Figure 3.3-ARRES-3), depicting views of the site from the back yards of residences along Westover Court, provides a better model for simulating the actual effectiveness of the landscaping treatment, and should be used (along with the other required simulations discussed herein) in a revised, recirculated DEIR. ORIN-36

Moreover, it is not clear that neighbors of the Ardith site received adequate notice that a visually imposing new reservoir is proposed for their community. The "Ardith Reservoir and Donald Pumping Plant" is mentioned in the Notice of Availability for the DEIR, but a footnote describes the reservoir and pumping plant as an "Existing EBMUD facility." (Notice of Availability, Table 1, footnote a.) This is misleading. A "Donald Pumping Plant" does already exist at the site, but the Project proposes that it be torn down and reconstructed in a different location. The "Ardith Reservoir" portion of the Project, moreover, would construct an entirely new and visibly massive above-ground tank in the middle of this residential neighborhood. By describing the Ardith site as an "existing facility," the Notice of Availability conveys the misleading impression that existing conditions will not change. Adequate notice must be provided to the neighbors of the Ardith facility.[6] ORIN-37

Happy Valley Pumping Plant

The DEIR's visual simulations at this location are incomplete and potentially misleading. Although the view of the site from Lombardy Lane is certainly important, the maps and photographs of the area also show a residence immediately adjacent to the site; it appears that the new pumping plant would be located within 50 feet of the back yard and swimming pool at this residence. (Fig. 3.3-HVPP-1; Map C-HVPP-1.) Map C-HVPP-1 shows that existing vegetation between the pumping plant and the residence will be removed, and the landscaping plan (Figure 3.3-HVPP-3) shows no replacement vegetation in this location. All of this information contradicts the DEIR's conclusion that existing trees and future landscaping will screen views from adjacent residences. (See DEIR at 3.3-42.) Again, the DEIR's conclusions regarding the significance of this impact are unsupported. ORIN-38

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[6] City staff have noted the conspicuous absence of the Ardith site's neighbors at informational meetings and City Council hearings. Neighbors of all of the other facilities proposed in Orinda have been very active in the public review and comment process; the silence of residents near Ardith Drive may well be due to the ineffectiveness of the notice. ORIN-37

C. The DEIR Inadequately Discloses, Analyzes, and Mitigates Impacts Related to Geology, Seismicity, and Soils.

Improvement projects discussed in the DEIR pose a number of potentially serious hazards related to slope, seismic, and soil instability. The City of Orinda has obtained a geotechnical report, prepared by Darwin Myers and Associates, and attached as Exhibit 1 to this letter, which details the DEIR's failure to provide necessary site-specific geotechnical information.

The DEIR defers analysis and mitigation of geologic hazards to a time after Project approval in violation of CEQA. (See Sundstrom v. Mendocino County (1988) 202 Cal. App. 3d 296.) A lead agency may not approve a project subject to conditions requiring the applicant to prepare future studies and mitigation measures, because in so doing the agency would be improperly delegating its legal responsibility to assess a project's environmental impact. (Id. at 307.) Rather, CEQA requires the lead agency itself to prepare or contract for the preparation of impact assessments (citing CEQA § 21082.1) that reflect the agency's "independent judgement." (Id.) The need for post-approval studies demonstrates the inadequacy of environmental review prior to project approval. (Id.) ORIN-39

Each of the major mitigation measures set forth in this section of the DEIR (Measures 3.4-1, -2, -3a, and -4) calls for site-specific geotechnical investigations to identify hazards and recommend appropriate mitigation. This is the kind of basic analysis of potential risks, impacts, and mitigation measures that should have been included in the DEIR itself. Omission of this analysis demonstrates the DEIR's inadequacy as an informational document.

Moreover, none of the measures contains performance standards that would permit a proper evaluation of the feasibility or effectiveness of the proposed mitigation. For example, Measure 3.4-4, concerning the potential for damage from soil liquefaction during earthquakes, states that the "performance standard" to be used in the geotechnical investigation "will be minimization of the hazards." (DEIR at 3.4-31.) This is an inadequate standard for two basic reasons. First and foremost, the "hazards" are not adequately identified in the DEIR; site-specific identification of liquefaction potential is deferred until after project approval. Second, without knowledge of site-specific hazards, it is impossible to determine what would be required to "minimize" those hazards, whether a "minimized" hazard is no longer significant for CEQA purposes, or whether the specific steps required to reduce the hazard to insignificance are feasible or practicable. Deferral also prevents analysis of the potential secondary or indirect environmental impacts of mitigation measures (for example, the impacts of dewatering, excavation, and soil replacement near creeks to mitigate the risk of liquefaction). (See CEQA Guidelines § 15126.4(a)(1)(D).) These examples illustrate the pitfalls of deferring analysis and mitigation of environmental impacts, and demonstrate why this approach does not satisfy CEQA. ORIN-40

Finally, the DEIR lists, but does not analyze, relevant provisions of the Safety Element of the Orinda General Plan. The City of Orinda requires preparation and peer review of a geotechnical investigation and report for facilities within the City that could create a geologic hazard. (Orinda General Plan, Safety Element, § 4.2.2.A, B; DEIR, App. D, at D-29.) The DEIR's deferral of site-specific geotechnical investigation could frustrate the City of Orinda's peer review process and threaten approval of encroachment permits where required under the Project. ORIN-41

D. The DEIR Inadequately Discloses, Analyzes, and Mitigates Impacts Related to Hydrology and Water Quality.

1. The DEIR's Reliance on Existing Permits, Conditions, and Regulations is Inadequate to Ensure that Impacts will be Less than Significant. ORIN-42

The DEIR relies extensively on existing federal and state regulations and permits in concluding that water quality impacts will be less than significant. Some of these permits pertain to construction at the various facilities, while others pertain to post-construction operations. In several instances, however, it is not clear from either the DEIR or the permits themselves that promises of compliance are sufficient to avoid or lessen significant impacts.

For example, the DEIR relies on the Regionwide General NPDES Permit for Discharges from Surface Water Treatment Facilities for Potable Supply ("Regionwide General Permit") in concluding that impacts from chloraminated discharges and changes in impervious surfaces will be less than significant. (See DEIR at 3.5-38, 3.5-42.) This permit will expire in August of 2008, prior to the start of construction at several locations (including the Orinda WTP). (Ex. 3, Regionwide General Permit, § D.18.) As a result, it is impossible to evaluate the conditions under which a majority of the Project will be constructed. ORIN-43

Moreover, the DEIR reveals that discharges into San Pablo Creek at the Orinda WTP have exceeded permit limitations on a number of occasions. (DEIR at 3.5-17 to 3.5-18.) Two of these discharges involved high acute toxicity levels. These exceedances demonstrate why claims of future permit compliance are not sufficient to mitigate potentially significant impacts; a proper mitigation measure would include not only an assertion that limitations exist, but also disclosure of what those specific limitations are, along with monitoring, reporting, and remedial action requirements in the event of exceedances. Instead, this DEIR relies on a permit that does not yet exist, and for which EBMUD might not even *apply* until early 2008. (Ex. 3, Regionwide General Permit, § D.18 (setting application deadline of February 28, 2008).) The DEIR thus fails to address potentially significant impacts resulting from permit violations and exceedances of permit limitations. ORIN-44

2. The DEIR's Proposed Mitigation Measures are Inadequate to Support its Conclusions.

Erosion from Construction

The DEIR defers development of site-specific plans for preventing discharges from construction in or near a number of watercourses throughout the Project area. There appear to be special risks of water pollution at the Orinda WTP, which is immediately adjacent to San Pablo Creek, the Happy Valley Pumping Plant, at the confluence of Lauterwasser Creek and a seasonal drainage, and the Happy Valley Pipeline, which crosses Lauterwasser Creek and three other drainages. The Happy Valley site lacks a stormwater system, and construction will occur roughly 50 feet uphill from the nearest watercourse. ORIN-45

The DEIR discusses these potential discharges in only the most general terms, and contains little information regarding particular risks at most locations. Nor does the DEIR propose specific mitigation measures, or even quantifiable performance standards, for the Project locations. Instead, the DEIR merely promises compliance with Section 01125 of the EBMUD construction specifications, which in turn requires preparation of a number of water quality control plans and compliance with applicable regulations. Because the Project's impacts are not disclosed in particular terms, the feasibility or effectiveness of mitigation measures to lessen those impacts cannot be assessed. Mitigation cannot be deferred in this manner. ORIN-46

The DEIR also fails to clarify whether Section 01125 is offered as a mitigation measure. On the one hand, the DEIR seems to rely on Section 01125 in concluding that construction-related impacts, although potentially significant, will be less than significant after mitigation. (See, e.g., DEIR at 3.5-24 (Table 3.5-2); 3.5-25.) On the other hand, compliance with Section 01125—and with the numerous other plans and provisions seemingly encapsulated within that section, such as Stormwater Pollution Prevention Plans and Best Management Practices—is not mentioned in either of the mitigation measures proposed for Impact 3.5-1. (See DEIR at S-36, 3.5-31.) If the DEIR is relying on Section 01125 in concluding that impacts can be avoided or mitigated to insignificance, it must identify Section 01125 as a mitigation measure, establish quantifiable and enforceable performance standards, and include them in a mitigation monitoring plan. ORIN-47

Finally, the DEIR provides an inadequate basis for issuance of necessary permits by responsible agencies. The Happy Valley Pipeline will require County encroachment permits for creek crossings, which in turn will require evidence of compliance with California Department of Fish & Game and Army Corps of Engineers regulations. The Department of Fish & Game, as a responsible agency, will need to rely on the DEIR in making its own determination regarding issuance of a streambed alteration agreement. The information presented concerning the location and design of stream crossings, however, is insufficient for the Department's ORIN-48

purposes. (See Fish & Game Code §§ 1602, 1603.) Nor may CEQA compliance be deferred until the Department actually receives an application for a streambed alteration agreement. CEQA requires analysis of the whole of the action, and does not permit such "piecemeal" analysis of environmental impacts. ORIN-48

Water Quality Degradation from Dewatering Discharges

Relying solely on compliance with Section 01125 and other applicable regulations, the DEIR impermissibly concludes that this impact will be less than significant (and that no mitigation is required) at all locations. (DEIR at 3.5-24 (Table 3.5-2.).) Yet the DEIR also states that discharges from the Orinda WTP and the Aqueduct could "adversely affect" water quality" in San Pablo, Lauterwasser, and Lafayette Creeks, implying that this would be a significant impact without mitigation. (DEIR at 3.5-32, 3.5-33.) This contradictory treatment results from the DEIR's improper deferral of analysis of both impacts and mitigation measures. For example, the detailed hydrologic study necessary to determine the volume and quality of water pumped during Aqueduct construction will not be performed until after Project approval. (DEIR at 2-64.) The DEIR must analyze and disclose these impacts, and prepare enforceable, specific mitigation measures. ORIN-49

The DEIR also fails to analyze the potential for discharges from dewatering at other locations. Dewatering of subsurface soil is among the mitigation measures proposed to address the potential for soil liquefaction, and dewatering may also be necessary where pipelines cross creeks. (See DEIR at 3.4-32, 3.5-34.) In this respect the DEIR fails to analyze the secondary environmental impacts of mitigation measures as required by CEQA. (CEQA Guidelines § 15126.4(a)(1)(D).) ORIN-50

Operational Discharges of Chloraminated Water

The DEIR acknowledges the risk that treated water—which could be highly toxic to aquatic organisms—could be discharged from a number of locations. (DEIR at 3.5-37.) According to the DEIR, these discharges would be "occasional" or "rare" events resulting from emergencies or accidents. (See DEIR at 3.5-38.) Recent news coverage, however, indicates that discharges of chloraminated water are a significant concern throughout EBMUD's service area. (See Ex. 4, Patrick Hoge, Water-Main Breaks Proving Deadly to Fish, San Francisco Chronicle (July 15, 2006), at B-1.) The DEIR promises to dechlorinate such discharges in accordance with applicable regulations, but it is not clear how this would be accomplished, especially given the "emergency" circumstances that would cause such a discharge in the first place. Again, this is a potentially significant impact that should be clearly disclosed and specifically mitigated. ORIN-51

Changes in Impervious Surfaces

Although the DEIR acknowledges that County municipal stormwater permits now require specific treatment control measures (the "C.3 provisions") for projects that create or replace more than 10,000 square feet of impervious surface, the document states that other permits—namely the Regionwide General Permit and "site-specific BMP" plans—supercede this requirement. It is not clear, however, that these superceding requirements are intended to address hydrologic impacts from an increase in impervious surfaces. This is not among the discharges covered in the Regionwide General Permit. (See Ex. 3, Regionwide General Permit, at 7-8.) Moreover, the "BMPs" discussed in the DEIR appear to apply only to construction-related (rather than operational) discharges. If the specific measures of the County permits are not applicable, the DEIR should explain exactly what measures are applicable. As currently written, the DEIR lacks any support for its conclusion that this impact is less than significant. ORIN-52

It is our understanding that staff of the Regional Water Quality Control Board intend to develop a regional storm water NPDES permit for Bay Area municipal storm water discharges in 2006-07 that may include additional or more restrictive requirements regarding impervious surfaces. Because the 2003 General Permit will need to be reissued prior to the commencement of construction of most Project components, it is possible that requirements similar to the C.3 provisions will be included that would apply to the Orinda WTP under Alternative 2 (90,000 square feet), the Donald pumping plant and Ardith reservoir sites, and potentially to the Orinda WTP under Alternative 1 (41,500 square feet). These potential future permit changes, however, do not absolve the DEIR of its responsibility to analyze and mitigate the potentially significant impacts of increasing impervious surfaces. ORIN-53

E. The DEIR Inadequately Analyzes and Mitigates Impacts on Biological Resources.

1. The DEIR Inadequately Discloses Impacts and Improperly Defers Development of Mitigation Measures.

The DEIR inadequately describes mitigation measures to address degradation of streams, wetlands, and riparian areas. For example, trenching across streams and associated removal of riparian vegetation "would result in significant effects." (DEIR at 3.6-34.) The mitigation measure proposed to reduce this impact, however, is vague. It is not clear that "confining activities to areas above or below the stream crossing," or using jack-and-bore construction "where feasible," will reduce these impacts. (DEIR at 3.6-39.) The DEIR must fully disclose impacts, and develop adequate mitigation, at particular stream crossings along each alignment. ORIN-54

By the same token, the DEIR impermissibly defers preparation of a complete wetland delineation until some later date, and then only if impacts to "potentially jurisdictional features" cannot be avoided or minimized. (See DEIR at 3.6-40.) A number of Project facilities will be constructed either adjacent to or across streams and riparian areas; it is therefore highly unlikely that all impacts to these jurisdictional features can be avoided or minimized. The DEIR promises that required permits and agreements will be obtained from the Army Corps of Engineers and the Department of Fish and Game; as previously discussed, however, the document does not describe jurisdictional impacts in enough detail to enable informed decision-making by responsible agencies. A wetland delineation, showing the location of jurisdictional features and detailing impacts, should have been prepared as part of the DEIR. ORIN-55

The DEIR also fails to analyze secondary environmental impacts of proposed mitigation. Measure 3.6-2d recommends placing energy dissipation devices "such as riprap" in creeks to minimize erosion. Although energy dissipation is necessary for overflow discharges, riprapping a creekbed can adversely affect instream habitat for aquatic species by removing natural stream structure and altering flow regimes. This impact should have been disclosed in the DEIR. ORIN-56

Finally, the DEIR contains inadequate information about the life cycles and breeding patterns of sensitive wildlife species, rendering evaluation of proposed mitigation measures difficult. The DEIR's general discussion of bat species, for example, provides insufficient background for evaluation of the specific buffer zones and seasonal limitations proposed in Measure 3.6-5. Similarly, the DEIR contains no information on the feasibility or potential success of woodrat nest relocation, nor does it reveal how successful relocation of California yellow-legged frog nests might be. The DEIR also repeatedly assures that a good deal of construction disturbance will be "temporary and primarily linear," although the document also admits that direct mortality of some species will occur. (See DEIR at 3.6-56.) It is thus clear that construction disturbance will result in direct mortality; the "linear" orientation and "temporary" duration of construction activities do not reduce the significance of this impact. In order to support findings regarding significant impacts to these sensitive species, both before and after mitigation, the DEIR must present substantially more information. ORIN-57

2. The DEIR Lacks Analysis Necessary to Conclude that "Program-Level" Impacts will be Less than Significant.

The DEIR's analysis of "program-level" impacts at the Orinda WTP and along the San Pablo Pipeline are insufficient to support any determination regarding the effectiveness of mitigation measures. The DEIR acknowledges that construction of clearwells and other facilities at the Orinda WTP could adversely affect tributaries to San Pablo Creek, and indicates that the San Pablo Pipeline will pass through critical habitat for the Alameda whipsnake. Particular information on biological resources and construction methods, however, is not ORIN-58

presented. The DEIR cannot support its conclusion that impacts will be less than significant merely by labeling this a "program-level" analysis. At both a "program" and a "project" level, actual disclosure and analysis of impacts and mitigation measures are necessary to justify any such conclusion. ORIN-58

3. The White-Tailed Kite is a "Fully Protected" Species.

California Fish & Game Code section 3511 lists certain bird species that are "fully protected" under California law. The white-tailed kite, which could occur in the Project area (particularly near the San Pablo Pipeline alignment), is a "fully protected" species. (Fish & Game Code § 3511(b)(12).) The DEIR's discussion of the regulatory framework should acknowledge this status. ORIN-59

F. The DEIR Inadequately Discloses Potential Impacts to Cultural Resources

The DEIR reveals that thorough surveys for archaeological and historical resources, particularly at sites in Orinda, have not yet been completed. The City of Orinda would also like to be included in discussions concerning the design of new facilities near the historic Orinda filter building.

According to the DEIR, the Orinda WTP property was surveyed in 1987. (DEIR at 3.7-19.) It is not clear, however, how much of the property was surveyed at that time. Moreover, the surface reconnaissance of the Orinda Sports Field was incomplete because the area was "mostly covered by grasses." (Id.) The DEIR's discussion of these surveys should be expanded, and additional surveys should be conducted, in order to provide adequate disclosure of potential impacts. ORIN-60

The San Pedro Pipeline alignment appears especially vulnerable to these impacts. As the DEIR recognizes, there are numerous recorded prehistoric and historic sites in this "high sensitivity" area. (DEIR at 3.7-34 to 3.7-35.) EBMUD must conduct extensive surveys and thorough CEQA review before choosing to go ahead with this project or adopting a final alignment. Citation to general mitigation measures, such as Measure 3.7-1a, is not a sufficient basis for concluding that impacts to potentially unique resources can be mitigated to insignificance. ORIN-61

Finally, the City of Orinda is concerned about the effect of new construction at the Orinda WTP on the visual setting of the existing filter building, which is a City-designated historic landmark. The City would appreciate the opportunity to provide design-level input on architectural and landscaping treatments for all new buildings at the Orinda WTP, to ensure consistency with the historical designation. Providing such an opportunity would be consistent with EBMUD's goal of working to uphold the plans and policies of local jurisdictions. ORIN-62

G. The DEIR Inadequately Discloses and Analyzes Impacts and Mitigation Measures Related to Traffic and Circulation.

The City of Orinda is especially concerned about the traffic and circulation impacts resulting from simultaneous and overlapping construction of various Project elements within the City limits. The DEIR recognizes that encroachment permits from the City will be required for the Aqueduct, Happy Valley Pumping Plant and Pipeline, and Sunnyside Pumping Plant components of the Project. (DEIR at 2-91 (Table 2-13).) An encroachment permit requires specific findings that an encroachment is necessary and will not have an adverse effect on the public interest, safety, health, welfare, other property, or the environment in general. (Orinda Mun. Code § 12.08.040(C)(1), (2).) As discussed herein, the DEIR does not clearly establish that these encroachments are necessary. Moreover, the DEIR fails to disclose or analyze traffic and circulation impacts in sufficient detail and routinely downplays the significance of road closures and detours associated with pipeline projects. As a result, the DEIR not only fails to meet the requirements of CEQA, but also provides an insufficient basis for granting the apparently required encroachment permits. ORIN-63

The DEIR fails to substantiate its assumptions regarding vehicle capacity of area roads. All two-lane roads are assumed to be able to carry 15,000 vehicles per day, and all four-lane roads are presumed capable of carrying 25,000-30,000 vehicles per day. The DEIR provides no specific source for these assumptions, which seem especially dubious when applied to the narrow residential streets most adversely affected by roadway trenching activities. The DEIR lists only four references, two of which are web sites containing bus schedules, and the other two of which are Caltrans web sites containing traffic counts for *state highways*. (DEIR at 3.8-26.) A prominent notice on the Caltrans site states that "We do not collect traffic count information on locally maintained streets." (Traffic and Vehicle Data Systems Unit Home, at http://www.dot.ca.gov/hq/traffops/saferesr/trafdata/index.htm.) The DEIR must substantiate its assumptions that local streets are not already beyond their capacity before reaching any conclusion regarding the significance of traffic impacts or the effectiveness of mitigation. ORIN-64

The DEIR also omits any project-specific analysis of construction-related traffic impacts at several sites in the City of Orinda. Although a few "examples" of "noticeable" project-related traffic increases are provided, the DEIR fails to discuss impacts at the Orinda WTP, Happy Valley Pumping Plant and Pipeline, and Sunnyside sites. (DEIR at 3.8-13.) This omission is especially glaring given that under Alternative 2, the Orinda WTP site will bear the brunt of construction for the entire Project. Oddly, Camino Pablo is not even listed as a "key local roadway" in the DEIR, despite carrying more than 26,000 vehicles per day. ORIN-65

The DEIR also fails to recognize that traffic conditions do not remain static. Construction of various Project elements will continue for many years into the future, yet the DEIR contains no projection of future traffic conditions or roadway capacity. This is a serious ORIN-66

omission, one that could require the production of substantial additional data and recirculation of the DEIR. ORIN-66

The DEIR also fails to address fully the impacts of pipeline projects along residential roads. Under either Alternative, construction traffic for the Happy Valley Pipeline will be using narrow roads through residential neighborhoods, and residents will be required to follow lengthy and circuitous detour routes during daytime hours for as long as two years. (See DEIR at 3.8-21.) The DEIR does not contain any information about current capacities, traffic counts, or impacts resulting from either construction or detour traffic on these predominantly residential roads. Again, this information could be sufficiently substantial to require recirculation of the DEIR. ORIN-67

Moreover, the mitigation for these impacts is entirely deferred and improperly delegated; under Measure 3.8-1, the *contractor* will be responsible for formulating traffic management plans sufficient to reduce impacts to insignificance. (DEIR at 3.8-13 to 3.8-14.) Although the contractor must "submit" these plans to the "agencies having jurisdiction over the affected roads," it is not clear that those agencies will have any approval authority. Nor does it appear that EBMUD, as lead agency, will ever evaluate the traffic plans to ensure that they contain measures sufficient to address site-specific concerns. This is an improper deferral and delegation of the lead agency's responsibility and authority to mitigate significant impacts. Furthermore, this deficiency infects the entire traffic section of the DEIR, because all but one of the other traffic mitigation measures simply require implementation of Measure 3.8-1. ORIN-68

Mitigation for impacts to County transit service through the Happy Valley Pipeline area—one of the few impacts that the DEIR identifies as significant and unavoidable—is also deferred and incomplete. The DEIR again delegates responsibility for mitigating this impact to the contractor, who must coordinate with County Connection officials to provide alternative transit service where possible. (See DEIR at 3.8-15.) In addition, the DEIR fails to acknowledge potential impacts on school bus service. Any coordination regarding road closures, delays, and/or detours also must include the Orinda Union School District. ORIN-69

Finally, the DEIR fails to acknowledge that long-term road closures affect not only transit routes but also riders. Where bus lines cannot be relocated, additional mitigation measures should be developed and evaluated by the lead agency prior to project approval. These measures should include exploration of some form of compensation or alternative transportation for transit riders whose livelihoods may be seriously affected by cessation of daytime bus service through the area affected by the Happy Valley Pipeline. The DEIR should have analyzed the needs of these transit riders and the feasibility of providing shuttle service or other alternatives to a cessation of bus service. The DEIR failed to disclose and analyze feasible mitigation strategies for these impacts. ORIN-70

H. The DEIR Inadequately Discloses and Analyzes Air Quality Impacts and Mitigation Measures.

The City of Orinda is concerned about the health effects of air pollution during construction of the various Project facilities. As the DEIR acknowledges, the Bay Area is currently designated as a non-attainment area for ozone and particulate matter. (DEIR at 3.9-3 (Table 3.9-1).) Data from the Concord monitoring station show high particulate matter concentrations east of the East Bay hills. (See DEIR at 3.9-7 (Table 3.9-3); see also Ex. 5, Bay Area Air Quality Management District ("BAAQMD"), Bay Area Pollution Summary 2004, at http://www.baaqmd.gov/pio/aq_summaries/pollsum04.pdf.) The adverse health effects of ozone and particulate matter pollution, especially PM2.5, are well-documented. ORIN-71

1. The DEIR Fails to Explain or Support its Estimates of Construction Emissions and its Conclusions Regarding Mitigation Measures.

The DEIR's emissions estimates for particulate matter are insufficiently detailed to allow for proper analysis by the public and decision-makers. The DEIR explains that the BAAQMD emissions factor for PM10 was "applied to estimated earthmoving quantities," but omits detailed calculations showing the precise relationships between the emissions factor, the amount of acreage disturbed at any one time, and total earthmoving quantities. The DEIR cites the BAAQMD CEQA Guidelines for the relevant emissions factors, but those guidelines make clear that the factor used in the DEIR is approximate; where emissions are to be quantified, the guidelines recommend dividing the construction process into component activities and using specific EPA emissions factors for each activity. (See Ex. 6, BAAQMD CEQA Guidelines (Dec. 1999), at 28-29.) It is not clear whether the conclusions stated in Table 3.9-4 were derived from the approximate emissions factor of 51 lbs/acre/day or a more specific application of emissions factors for various activities. It also appears that particulate matter from other construction activities, including construction equipment emissions and demolition of existing structures (e.g., the flocculation and sedimentation basins at the Orinda WTP) were not included in the total. The DEIR should be revised to explain the formulas and assumptions used in calculating emissions, including how the "acres/day" surface disturbance figures were calculated and their relationship to the actual amount of disturbed ground expected on any given day.[7] ORIN-72

The DEIR also relies almost entirely on compliance with fugitive dust control measures outlined in the BAAQMD CEQA Guidelines in concluding that impacts will be less ORIN-73

[7] These surface disturbance figures appear to be averages over the duration of construction rather than representations of the quantity of earth that will be disturbed on any given day. These assumptions obviously affect the conclusions derived from application of emissions factors. In order for these figures and conclusions to be meaningful, the DEIR must explain how they were derived and how they relate to actual construction conditions. ORIN-72

than significant after mitigation. (See DEIR at 3.9-10.) The DEIR does not apply all of these measures, however, to all aspects of the Project. The DEIR claims that construction-related emissions are considered adequately mitigated "if BAAQMD-recommended dust-control measures are implemented." (DEIR at 3.9-10.) This is true, however, only if *all* of the control measures specified in Table 2 of the BAAQMD CEQA Guidelines are employed. (Ex. 6, BAAQMD CEQA Guidelines, at 14.) The DEIR would apply only the "basic" measures from Table 2 to projects commencing before 2011, and would apply "enhanced" measures only to the longer-term projects. (DEIR at 3.9-13.) Additional control measures recommended in Table 2 for large construction sites, and sites located near sensitive receptors, are not discussed in the DEIR. (See Ex. 6, BAAQMD CEQA Guidelines, at 15 (Table 2).) Most of the Project's construction sites—including all of the sites in the City of Orinda—are within a few hundred feet of sensitive receptors such as residences and schools.

ORIN-73

The DEIR's reliance on the BAAQMD CEQA Guidelines is therefore misplaced. As the Guidelines make clear, "[i]f all of the appropriate measures in Table 2 will not be implemented, then construction impacts would be considered to be significant (unless the Lead Agency provides a detailed explanation as to why a specific measure is unnecessary or not feasible)." (Ex. 6, BAAQMD CEQA Guidelines, at 14.) The DEIR does not provide any such detailed explanation, nor does it explain how its quantification of construction emissions supports its decision to use some, but not all, of the control measures specified in the BAAQMD CEQA Guidelines.

ORIN-74

This problem seems to arise from the DEIR's hybrid approach to construction emissions. On the one hand, the DEIR relies on the BAAQMD Guidelines' focus on control measures rather than quantified emissions, claiming that compliance with control measures automatically results in less-than-significant impacts. On the other hand, the DEIR purports to quantify construction emissions—albeit without any detailed explanation of the particular emissions factors or assumptions involved—and then uses this quantification to justify a decision *not* to employ all available control measures. (See DEIR at 3.9-13.) The DEIR thus does not follow either approach recommended in the BAAQMD CEQA Guidelines, and its conclusions regarding the significance of construction emissions after mitigation are unsupported.

ORIN-75

2. Assertions in the DEIR are Unsupported or Contradictory.

The DEIR contains inadequate information on particular impacts of the Project. In general, the DEIR fails to analyze emissions from stationary and construction equipment; analysis of diesel particulate emissions focuses only on haul routes and appears to omit construction sites. As previously discussed, it is not clear whether combustion emissions were included in the quantification of construction emissions; nothing in Table 3.9-4 or the

ORIN-76

accompanying discussion indicates that they were. This is a serious omission, one that should be corrected in a revised and recirculated DEIR. ORIN-76

Other discussions are internally contradictory. For example, Measure 3.9-1c asserts that line power (rather than diesel generators) will be used at the Aqueduct entry and exit tunnels to reduce diesel particulate emissions. (DEIR at 3.9-25.) In discussing the Aqueduct's noise impacts, however, the DEIR envisions nighttime use of "generators" at the entry shaft and possibly the exit shaft as well. (DEIR at 3.10-20.) The DEIR must clarify whether line power or generators will be used at this location. ORIN-77

The DEIR also notes that Project implementation would increase demand for electricity and emissions from power generation. (DEIR at 3.9-33.) Indeed, as discussed in the Public Services and Utilities section, the Project could require construction of additional electrical distribution facilities. (See DEIR at 3.12-17 to 3.12-18.) The DEIR fails to address the secondary environmental impacts of this increased power demand. The fact that these additional emissions might occur outside the air basin does not diminish the potential significance of these impacts, nor does it relieve the DEIR of responsibility to analyze them. By the same token, vague references to reliance on renewable energy sources, while generally laudable, are no substitute for analysis of actual impacts and feasible mitigation measures. The DEIR must be revised and recirculated with an adequate discussion of this impact. ORIN-78

Finally, the DEIR's discussion of "program-level" activities remains inadequate. For example, the second clearwell proposed for the Orinda WTP, which would require "extensive excavation," is only 15 feet from the southern edge of Wagner Ranch Elementary School's play fields. (DEIR at 3.9-34.) This aspect of the Project is not described in sufficient detail to support a conclusion that standard BAAQMD control measures will mitigate impacts to a less-than-significant level. Again, thorough CEQA review will be required before any further action may be taken on such "program-level" activities. ORIN-79

3. The DEIR Fails to Analyze the Potentially Serious Health Effects of Hydrogen Sulfide Emissions.

The DEIR mentions almost in passing that hydrogen sulfide could be encountered during Aqueduct tunneling operations. (DEIR at 3.9-28.) Hydrogen sulfide is not only extremely malodorous but also highly toxic. Concentrations above 600 ppm can cause death within minutes, and exposure to 1000 ppm has been reported to cause immediate respiratory arrest; indeed, hydrogen sulfide exposure "is reported to be the most common cause of sudden death in the workplace." (Ex. 7, California Office of Health Hazard Assessment, Determination of Acute Reference Exposure Levels for Airborne Toxicants, Acute Toxicity Summary, Hydrogen Sulfide (March 1999), at C-181 (available at http://www.oehha.ca.gov/air/acute_rels/pdf/7783064A.pdf).) Hydrogen sulfide is especially ORIN-80

lethal in enclosed situations (such as a tunnel), but accidental atmospheric releases from industrial facilities have also been fatal. (Id.) Exposure to concentrations ranging from 2.5 to 50 ppm, has been shown to cause conjunctivitis, respiratory irritation, and impaired lactate and oxygen uptake in the blood. (Id.) Although hydrogen sulfide gas has a "strong and offensive odor" at very low concentrations (the geometric mean odor detection threshold is a minuscule .008 ppm), olfactory fatigue prevents detection at higher, more dangerous concentrations, meaning that the signature rotten-egg smell of the gas will not alert workers or neighbors to the danger. (Id.) ORIN-80

Because detailed geotechnical studies for the Aqueduct tunnel have not yet been completed, the DEIR is unable to say whether methane and hydrogen sulfide will be encountered, and in what concentrations. Other tunnels in the area, however, including the Lafayette aqueducts along a similar alignment, were classified as "gassy" tunnels. (See DEIR at 3.11-4.) At the very least, the DEIR could have included some estimates of the potential for hydrogen sulfide emissions and possible concentrations of the gas based on data from other tunnels in the region. The DEIR also should have discussed applicable BAAQMD regulations governing hydrogen sulfide emissions. (Ex. 8, BAAQMD Rules and Regulations, Regulation 7 (odorous substances); Ex. 9, BAAQMD Rules and Regulations, Regulation 9, Rule 2 (inorganic gaseous pollutants).) Finally, the DEIR should have included specific information about the location of ventilation shafts and other potential conduits for gaseous emissions from the tunnel, both at entry and exit points as well as along the tunnel route. Given the potential for strong and unpleasant odors—and at worst, lethal poisoning of workers or others in the vicinity—these omissions must be corrected in a revised and recirculated DEIR. A good-faith effort at full disclosure requires no less. ORIN-81

4. The DEIR Contains No Analysis of PM2.5 Impacts.

The Bay Area air district is classified as a non-attainment area for PM2.5 under state law. These fine particulates pose especially grave health risks, as extensively documented by both federal and state authorities. The DEIR, however, omits any analysis of PM2.5 impacts. If analysis of direct and precursor emissions of PM2.5 shows that impacts will be more significant than those disclosed in the DEIR, then the DEIR must be revised and recirculated. ORIN-82

I. The DEIR Inadequately Analyzes and Mitigates Significant Noise Impacts.

1. The DEIR Uses Improper Thresholds of Significance.

By focusing narrowly on speech interference and local noise ordinances, the DEIR's thresholds of significance for noise do not accurately reveal noise impacts. Under CEQA, a substantial increase in ambient noise levels in the project vicinity "above levels existing without the project" is a significant impact, whether that increase is permanent, ORIN-83

temporary, or periodic. (CEQA Guidelines, App. G, § XI(c), (d).) Under CEQA, therefore, a substantial increase in noise at a normally quiet location may still be significant, even if it is not so loud as to make conversation impossible or violate noise ordinances. The DEIR's omission of this threshold underestimates some of the Project's more significant impacts. ORIN-83

The DEIR's use of the Leq measurement—which averages acoustical energy over a 24-hour period (DEIR at 3.10-1)—in evaluating the significance of noise from haul trucks is also inappropriate. (See DEIR at 3.10-35.) Haul truck noise is experienced as a periodic impact, not as a constant impact, and is therefore best evaluated by comparison of each event with prevailing ambient noise levels rather than an Leq level that tends to flatten out periodic events. ORIN-84

Finally, it is not clear what standard of significance the DEIR uses for evaluation of vibrational impacts at the Aqueduct construction site. Two possible standards are discussed: the .012 inch/second PPV "annoyance" standard and the .5 inch/second PPV "cosmetic damage" standard. (DEIR at 3.0-39 to 3.9-40.) Mitigation measures incorporate only the .5 inch/second PPV standard, suggesting that this standard functions as the significance threshold. (DEIR at 3.9-40.) The CEQA Guidelines, however, focus on "exposure of *persons*" to groundborne vibrations. (CEQA Guidelines, App. G, § XI(b) (emphasis added).) Therefore, the "annoyance" standard, which evaluates impacts on "persons," is a more appropriate threshold of significance (and performance standard for mitigation measures) than the higher standard, which focuses only on preventing damage to structures. ORIN-85

2. The DEIR Fails to Justify its Conclusions Regarding Significance of Impacts.

The DEIR's noise analysis suffers from a number of significant omissions and possible errors, especially concerning the effectiveness of mitigation measures at various locations in the City of Orinda. ORIN-86

Analysis of impacts at the Orinda WTP omits any consideration of the Wagner Ranch Elementary School as a sensitive receptor. The school's play fields are adjacent to the entry shaft for the Aqueduct; construction of additional "project-level" treatment facilities under Alternative 2 might also be audible from the school site. The DEIR should discuss whether indoor and outdoor uses at the school will be affected by Project noise.

The DEIR's analyses of noise impacts at the Happy Valley Pumping Plant and along the pipeline route are of significant concern to the City of Orinda. The pumping plant site is surrounded by residences and other sensitive receptors, some as close as 50 feet. (DEIR at 3.10-25.) According to Table 3.10-6, noise at the pumping plant construction site, even after controls are applied, will exceed the 70-dbA exterior speech interference threshold by between five and 11 dbA. (DEIR at 3.10-14, 3.10-25.) ORIN-87

The DEIR concludes that a noise barrier would be "adequate to reduce construction noise to a less-than-significant level" (DEIR at 3.10-25), but this conclusion is doubtful for at least two reasons. First, depending on feasible locations and designs for noise barriers, this measure may not reduce noise levels below the speech interference threshold. The DEIR does not provide enough information about barrier placement and design to support its conclusion. Second, the DEIR uses the wrong threshold of significance. Ambient daytime noise levels in the vicinity of the pumping plant average 54 dbA on weekends. (DEIR at 3.10-6 (Table 3.10-2.) Even if a noise barrier fitted with sound-absorbing material were somehow able to achieve a 15 dbA reduction at the site (see DEIR at 3.10-15 (Table 3.10-6, note c)), and allowing for a 1-3 dbA increase in ambient noise levels on weekdays, construction noise at the site would still reach 66 dbA—roughly *double* current average ambient levels. (See DEIR at 3.10-1 (10-dbA increase in continuous noise is perceived as a doubling of loudness).) Therefore, even under the most optimistic noise mitigation scenario, the project would still cause a "substantial temporary or periodic increase in ambient noise levels in the project vicinity," and would thus remain significant under the CEQA Guidelines. (CEQA Guidelines, App. G, § XI(d).) ORIN-88

Noise impacts along the Happy Valley Pipeline route, and the pipeline portion of the Aqueduct, would also remain highly significant even after application of all proposed mitigation measures. Again, sensitive receptors are located within 25 feet of the Aqueduct pipeline and within 50 feet of the Happy Valley Pipeline; noise levels at both locations after controls are applied are expected to exceed the 70-dbA speech interference threshold. (DEIR at 3.10-12 (Table 3.10-5).) The DEIR concludes that these impacts will be mitigated to a less-than-significant level at both locations. (DEIR at 3.10-23, 3.10-25.) ORIN-89

These conclusions cannot be sustained by the facts. According to the DEIR, Measure 3.10-1b, which adjusts construction hours for consistency with the Orinda noise ordinance, will adequately mitigate impacts at both locations. (Id.) This measure, however, does nothing to reduce the actual noise of construction below the speech interference threshold of significance. Moreover, sound barriers are *not* proposed as mitigation measures for pipeline projects. (See DEIR at 3.10-33 (Measure 3.10-1e).) In addition, jack-and-bore construction—which involves pile driving—may be used at stream crossings along pipeline projects to avoid aquatic impacts. (DEIR at 3.6-34, 3.10-30.) Pile driving produces much more noise than any of the impact activities analyzed for the pipeline routes. (Compare DEIR at 3.10-10 (Table 3.10-4) with 3.10-12 (Table 3.10-5).) Therefore, the noise level along both pipeline routes will exceed not only ambient noise levels without the project, but also the much higher ORIN-90

speech interference threshold used by the DEIR.[8] Accordingly, the DEIR's conclusion that impacts will be mitigated to a less-than-significant level is without foundation. ORIN-90

Noise impacts at the Sunnyside Pumping Plant and Ardith Reservoir sites, both located in quiet residential neighborhoods, also may be expected to cause substantial increases in ambient noise levels within the meaning of the CEQA Guidelines. (See DEIR at 3.10-13 to 3.10-14 (Table 3.10-5).) Again, the DEIR fails to consider this threshold of significance, and its conclusions regarding the significance of impacts are thus unsupported. ORIN-91

The DEIR's analysis of noise impacts at the Aqueduct entry shaft is also flawed. Specific "baseline" noise measurements and development of mitigation measures are improperly deferred until after project approval. (See DEIR at 3.10-32.) In addition, the DEIR's acknowledgment that a front-loader will need to be operated at night to dispose of tunnel muck contradicts a mitigation requirement that loader operations cease after 6 PM. (DEIR at 3.10-20, 3.10-32.) ORIN-92

Operational noise impacts at all of the pumping plant sites are of considerable concern to Orinda residents. The DEIR concludes that noise from transformers and pumps at the Donald, Happy Valley, and Sunnyside plants will be less than significant, but reaches this conclusion on the basis of general promises to locate vents so as to direct noise away from sensitive receptors. (See DEIR at 3.10-45 to 3.10-48.) All of these pumping plants are located in residential areas and are surrounded by sensitive receptors. Incorporation of measurable decibel limits at each of these receptors, and adoption of a monitoring program to ensure that the limitations of the City of Orinda's noise ordinance will not be exceeded, are necessary to support any conclusion that operational noise impacts will be less than significant. ORIN-93

Finally, the DEIR's analysis of "program-level" actions remains inadequate to support the conclusions drawn. Noise from excavation and microtunneling at the northern clearwell site will exceed speech interference thresholds, even with noise controls, a few feet from the Wagner Ranch Elementary School play fields. Construction of the San Pedro Pipeline also would occur adjacent to the school. These impacts must be fully analyzed and mitigated, with reference to proper thresholds of significance, before any conclusions can be reached or action can be taken. ORIN-94

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[8] Even at the much noisier locations along El Nido Ranch Road where the Aqueduct pipeline would be constructed, average daytime weekday ambient noise levels are around 70 dbA. (DEIR at 3.10-6 (Table 3.10-2).) Construction of the pipeline at this location would produce noise ranging from 80 to 87 dbA—thereby *at a minimum* doubling perceived noise. (See DEIR at 3.10-12 (Table 3.10-5).) Nor does the fact that these impacts would only last two weeks at any given receptor site reduce the significance of the impact; the CEQA Guidelines require consideration of the significance of temporary and periodic impacts. ORIN-90

J. The DEIR Inadequately Analyzes Impacts and Mitigation Measures Related to Hazards and Hazardous Materials.

The DEIR's analysis of hazardous materials impacts is deficient in several respects.

The DEIR prematurely concludes that there is a low risk of encountering hazardous materials in the soil or groundwater during construction at the Orinda WTP. Although the Orinda WTP site is listed in the CORTESE database, which collates information from a number of other databases, the DEIR concludes that there is little risk of encountering hazards because no reason is given in the database for the site's inclusion. (See DEIR at 3.11-23.) Yet the DEIR also acknowledges that "it would be necessary to conduct regulatory agency file reviews to evaluate the actual potential" for encountering hazardous materials. (DEIR at 3.11-11.) In the absence of complete information in the CORTESE database, this file review should have been conducted prior to publication of the DEIR. ORIN-95

Nor does the DEIR adequately explain how soil and groundwater hazards will be identified. According to the DEIR, Section 01125 of the EBMUD construction specifications requires preparation of various plans for protecting health and safety and disposing of hazardous materials. (DEIR at 3.11-21.) The nature of these plans would logically depend on the nature of the hazards faced; without any information regarding detection of those hazards, it is impossible to conclude that ultimate impacts will be less than significant. ORIN-96

Indeed, a Phase I environmental assessment—recommended as the first step in an improperly deferred mitigation measure—should have been conducted, and its results disclosed in the DEIR. By the same token, the deferred geotechnical study for the Aqueduct tunnel should have been conducted and discussed in the DEIR. A Tunnel Safety Order or other measures imposed to deal with gassy conditions may substantially affect several aspects of construction, including the placement and operation of ventilation systems, the frequency of work stoppages, and the overall duration of the project. (See DEIR at 3.11-30.) The DEIR should have attempted to ascertain and then disclose any identified effects, rather than deferring both analysis and mitigation to some later date. ORIN-97

Finally, as correctly noted in the DEIR, several of the Project elements (both "project-level" and "program-level") are located in the wildland-urban interface and other areas of extreme fire hazard. The City of Orinda would appreciate the opportunity, consistent with local plans and policies, for local fire district involvement in design-level review and implementation of Project elements within the district's jurisdiction. (See DEIR at 3.11-32.) ORIN-98

K. The DEIR Inadequately Analyzes Secondary Impacts Resulting from Increased Demand on Utilities.

The DEIR uses a threshold of significance that omits a critical factor set forth in the CEQA Guidelines: the "adverse physical impacts" associated with the need for new facilities. (See CEQA Guidelines, App. G, § XIII(a).) According to the DEIR, implementation of the Project will result in substantial increases in demand for energy, and will necessitate construction of two new substation banks and circuits. (See DEIR at 3.12-17 to 3.12-18.) The DEIR fails to analyze the environmental impacts associated with construction of these facilities, just as it fails to address increased emissions from power generation at locations outside the immediate air district. ORIN-99

The DEIR suggests that EBMUD's Renewable Energy Facilitation Plan, along with public utilities' efforts to achieve a certain renewable energy portfolio, will reduce the environmental impacts of increased energy demand. (DEIR at 3.12-18.) These efforts, while laudable, are not presented in sufficient detail to support any conclusion regarding their potential value as mitigation measures for this particular project. Electricity demand under Alternative 2 at the Orinda WTP could increase by more than 6,000 kilowatts. (Id.) The DEIR quantifies only a few of EBMUD's renewable options; none of these options approach the 6,000-kilowatt mark, and nowhere does the DEIR even claim that renewable energy will offset increased demand. Unfortunately, the DEIR's discussion of this important effort is thus potentially misleading.[9] ORIN-100

The DEIR also inadequately mitigates a potentially serious impact on local landfill capacity. Vast quantities of excavated soil will be disposed in local landfills during Project construction. (See DEIR at 3.12-20 (Table 3.12-7).) This massive infusion of material "could substantially increase the disposal rates of jurisdictions in the WTTIP area and would thereby lower their diversion rates for the purpose of calculating AB 939 diversion." (DEIR at 3.12-21.) Solid waste disposal thus could have a serious effect on both local jurisdictions and their residents. Yet the identified mitigation measures provide no quantifiable or enforceable basis for determining that impacts will be less than significant. Measure 3.12-4a requires EBMUD to "encourage" facility design and construction methods that "produce less waste, or that produce waste that could more readily be recycled or reused." (DEIR at 3.12-20.) Measure 3.12-4b requires contractors to "describe plans for recovering, reusing, and recycling wastes." (Id.) The ORIN-101

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[9] The DEIR's descriptions of renewable energy efforts by public utilities are also potentially misleading. At one point, the DEIR claims that approximately 30% of Pacific Gas and Electric's electricity is "derived from renewable energy resources." (DEIR at 3.9-33.) The DEIR does not explain what PG&E counts as "renewable" or whether PG&E's definition is consistent with the renewable energy portfolio standards of the State of California. Nor does the DEIR explain whether or how this figure relates to conclusions that additional generation and distribution capacity will be required to serve the Project. ORIN-100

DEIR does not provide an estimate of how much recycling or reduction could be achieved by these measures, nor does the DEIR reveal how much reduction would be necessary to reduce this impact to a level of insignificance. Once again, the DEIR's conclusions regarding significance after mitigation lack a foundation in the evidence.

ORIN-101

IV. The DEIR Inadequately Analyzes Growth-Inducing Impacts.

An EIR must address any growth-inducing impacts of the project. CEQA Guidelines § 15126(d). Specifically, the EIR must discuss "the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment." CEQA Guidelines § 15126.2(d). It must also address project characteristics "which may encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively," and may not "assume[] that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment." Id.

The DEIR's discussion of growth-inducing impacts relies on comparisons among projected water demands, projected population growth, and projected development under local general plans in concluding that the Project will not induce growth at a greater rate than already considered in local planning documents. These comparisons, however, often seem to involve proverbial apples and oranges.

ORIN-102

For example, the DEIR assesses growth-inducing impacts by reference to average daily water demand. (DEIR at 4-6.) The Project, however, is designed to provide maximum-day demand capacity. (See DEIR at 2-14, 4-6 n.8.) As a result, the DEIR projects an average daily demand of 232 mgd for the year 2030, based on analysis of local general plan land use designations, but the Project is designed to accommodate a maximum-day demand of 363 mgd for the same year. As the DEIR acknowledges, a key question in analyzing growth-inducing impacts is whether a project will remove an obstacle to growth and thereby directly or indirectly support more growth or construction than were anticipated under local land use plans. (DEIR at 4-1.) A key factor in answering this question is the relationship between average daily demand and maximum-day demand, i.e., the average daily demand that could be supported by a system designed for a maximum-day capacity of 363 mgd. If the Project enables EBMUD's facilities to operate at an average daily capacity greater than 232 mgd (allowing for conservation), then the Project would be capable of supporting greater population and development growth rates than considered in the DEIR or the EIRs for the general plans on which the DEIR relies. Again, the key question is whether the Project's additional *capacity* removes an obstacle to growth, not whether EBMUD's estimates of average demand growth square with those of other agencies. The DEIR must analyze the relationship between treatment capacity and planned growth.

Finally, it is not clear why the DEIR relies so heavily on population growth estimates by the Association of Bay Area Governments. EBMUD has the ability to predict future water usage based on adopted land use designations, as the DEIR explains. (See DEIR at 4-5 to 4-6.) To the extent that the DEIR relies on analysis and mitigation presented in other EIRs, it would appear that local general plans would provide a better basis for comparison than a general population estimate that has not been subjected to environmental analysis. ORIN-103

V. The DEIR Inadequately Discloses, Analyzes, and Mitigates Cumulative Impacts.

A. The DEIR's Analysis of "Collective and Overlapping" Impacts is Incomplete and Misleading.

In Chapter 5.2, the DEIR attempts to examine the environmental impacts of the Project as a whole, but the attempt falls short. The DEIR's discussions of overlapping impacts are cursory, and generally omit any particular comparison of actions, work schedules, and impacts. Instead, this section of the DEIR essentially repeats the conclusions of Chapter 3 regarding the impacts of particular Project elements, and then states in a conclusory fashion that there will be no collective impact. This ignores not only CEQA's requirement that an EIR analyze the whole of an action, but also CEQA's critical insight that particular impacts, although individually minor, may be collectively significant. (See CEQA Guidelines §§ 15355(b) (defining "cumulative impacts"), 15378(a) (defining "project").) Examples of this basic deficiency abound. ORIN-104

The DEIR also downplays the potential for health effects from diesel particulate matter emitted along haul routes. EBMUD promises to "coordinate project schedules" under Alternative 2 so that daily truck volume remains lower than 600 trucks per day, but does not identify the locations where coordination will be necessary, the receptors near these locations, or how coordination will be achieved. This lack of detail renders analysis of the feasibility of this promise difficult. ORIN-105

The DEIR also relies on vague and deferred "internal coordination" measures in addressing the collective fire risk posed by a number of projects in the City of Orinda, despite the potential for serious problems stemming from reduced emergency vehicle access. The City of Orinda is concerned with the potential for catastrophic fire caused by simultaneous construction projects in areas of high wildland fire risk, as well as delays in emergency vehicle response caused by construction traffic and road closures. Local fire officials from the Moraga-Orinda Fire District and Contra Costa County need to be involved in this coordination process from the beginning in order to respond effectively to emergencies and protect life and property. ORIN-106

This section of the DEIR again fails to analyze environmental impacts related to energy demand. Here, the DEIR states that construction of additional electricity distribution ORIN-107

facilities would render the Project's impact on electricity demand less than significant. (DEIR at 5-11.) The collective energy demand of the Project is driving the need for these new facilities, and thus the DEIR should have disclosed and analyzed the indirect environmental effects caused by construction of these facilities. The DEIR contains no such disclosure or analysis. ORIN-107

Finally, the DEIR's discussion of collective impacts on landfill capacity is inaccurate and misleading. Hundreds of thousands of cubic yards of soil excavated from Project sites would be disposed in local landfills, reducing capacity and threatening additional costs for consumers and local governments alike. The DEIR claims that "[a]s described under Impacts 3.12-4 and 3.12-5 and presented in Table 3.12-5, however, most of this material would be reused on site . . . ." (DEIR at 5-12.) This claim is not true. At best, the DEIR's discussion of Impact 3.12-4 states that "some of this material would be stockpiled and used as backfill." (DEIR at 3.12-19.) Impact 3.12-5 does not promise reuse of material at all, and Table 3.12-5, which contains a summary of significance determinations, is similarly irrelevant. (See DEIR at 3.12-12, 3.12-21.) Table 3.12-7, however, clearly identifies the sources for the 230,000 to 375,000 cubic yards of soil "to be *disposed*" under the Project. (DEIR at 3.12-20 (emphasis added).) The mitigation measures offered to address this impact, as previously discussed, are vague, voluntary, and lack any quantifiable basis for determining feasibility or effectiveness. (See supra, § 3.L.) There is no basis for concluding that this collective impact will be less than significant. ORIN-108

B. The DEIR Improperly Concludes that the Project Will Not Contribute to Cumulative Impacts.

An EIR must discuss significant "cumulative impacts." (CEQA Guidelines § 15130(a).) "Cumulative impacts" are defined as "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts." (CEQA Guidelines § 15355.) "[I]ndividual effects may be changes resulting from a single project or a number of separate projects." (CEQA Guidelines § 15355(a).) A legally adequate "cumulative impacts analysis" views a particular project over time and in conjunction with other related past, present, and reasonably foreseeable future projects whose impacts might compound or interrelate with those of the project at hand. "Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time." (CEQA Guidelines § 15355(b).) Cumulative impacts analysis is necessary because "environmental damage often occurs incrementally from a variety of small sources [that] appear insignificant when considered individually, but assume threatening dimensions when considered collectively with other sources with which they interact."(Communities for a Better Env't v. Cal. Res. Agency, 103 Cal. App. 4th 98, 114 (2002).) ORIN-109

Analysis of cumulative impacts must be based on either a "list of past, present, and probable future projects" or a summary of projections contained in a prior planning or

environmental document. (CEQA Guidelines § 15130(b)(1).) An EIR also must contain "[a] summary of the expected environmental effects to be produced by those projects" as well as "a reasonable analysis of [their] cumulative impacts." (CEQA Guidelines § 15130(b)(4), (5).)

The DEIR's cumulative impacts discussion fails to meet these standards. The list of projects in Table 5-1 appears to omit past projects, and many present projects, from consideration. This list nonetheless makes clear that a substantial portion of the region, including the City of Orinda, will be undergoing construction of one kind or another for many years to come. The DEIR, however, takes an inappropriately narrow view of the Project's cumulative contribution to the impacts associated with these numerous projects. Although the DEIR lists the numerous projects in the area, it barely discusses any of these specific projects' impacts on particular resources; it thus falls far short of providing the "summary" of impacts required under section 15130(b)(4) of the CEQA Guidelines. Moreover, where the DEIR analyzes particular projects at all, it does so only where construction periods overlap, and generally fails to recognize that the duration or geographical accumulation of an impact may be just as significant as its immediate intensity. This is not the "reasonable analysis" required by CEQA. (See CEQA Guidelines § 15130(b)(5).)

ORIN-109

The DEIR also relies very heavily on the assumption that other projects will comply with applicable laws and regulations, including CEQA, and thereby tends to conclude that cumulative impacts will not be significant. This is not necessarily a safe assumption. CEQA allows lead agencies to approve projects despite environmental impacts that remain significant after mitigation; it is conceivable that some of the projects listed in Table 5-1 could be approved with a statement of overriding considerations and cause significant environmental impacts. Moreover, even if all of the impacts of these projects are individually mitigated to a less-than-significant level, a cumulatively considerable impact could still exist. The DEIR's assumptions thus fall prey to the classic misconception that individually insignificant impacts cannot be cumulatively significant. The DEIR's assumptions thus contravene the very purpose of cumulative impacts analysis under CEQA, which is designed to ferret out just this type of impact. Several of the DEIR's cumulative impact discussions, including those for water quality, air quality, and biological resources, suffer from this basic deficiency.

ORIN-110

This portion of the DEIR also contains other deficiencies. For example, there is no basis for concluding that cumulative impacts to cultural resources will be less than significant when surveys, especially along the San Pablo Pipeline alignment, are not yet complete. Discussions regarding admittedly significant cumulative impacts related to traffic and noise rely almost entirely on vague post-approval "coordination" and deferred development of "specific measures to mitigate significant impacts." (See, e.g., DEIR at 5-47.) The DEIR again erroneously concludes, without any analysis, that cumulative impacts on solid waste disposal will be less than significant, even though this Project alone threatens to overwhelm landfill

ORIN-111

capacity. Again, such vague measures cannot support a finding that cumulative impacts will be less than significant. ORIN-111

Cumulative traffic impacts are of special concern. The DEIR recognizes that extending the duration of traffic disruptions, whether from increased construction traffic or construction in roadways, may lead to significant impacts. (DEIR at 5-45.) These impacts will be especially significant for residents along Miner Road, who will be faced with a trunk sewer project and underground utility installation beginning in 2008, and then will have to negotiate up to two years of daily road closures and lengthy detours once construction starts on the Happy Valley Pipeline. (See DEIR at 5-18 to 5-19 (Table 5-1).) Travelers along Camino Pablo will also experience traffic delays associated with a trunk sewer project and several other projects during the years leading up to work on the Orinda WTP. (See id.) Yet the DEIR concludes that future "coordination" will reduce this impact to a level of insignificance, despite the lack of any real analysis concerning the feasibility or effectiveness of the few specific measures mentioned (such as the provision of flagmen and selection of alternative haul routes).[10] ORIN-112

Finally, the City of Orinda recognizes that the DEIR considers coordination with local fire service providers important. With this number of projects proceeding in areas prone to wildland fire, and many projects taking place in roadways that must remain open to emergency vehicle access, such coordination will be essential. ORIN-113

VI. The DEIR's Alternatives Analysis is Insufficient to Support a Reasoned Choice.

Every EIR must describe a range of alternatives to the proposed project and its location that would feasibly attain the project's basic objectives while avoiding or substantially lessening the project's significant impacts. CEQA § 21100(b)(4); CEQA Guidelines § 15126(d). A proper analysis of alternatives is essential for the County to comply with CEQA's mandate that significant environmental damage be avoided or substantially lessened where feasible. CEQA § 21002; CEQA Guidelines §§ 15002(a)(3), 15021(a)(2), 15126(d); Citizens for Quality Growth v. City of Mount Shasta, 198 Cal. App. 3d 433, 443-45 (1988). As stated in Laurel Heights Improvement Association v. Regents of University of California, "[w]ithout meaningful analysis of alternatives in the DEIR, neither the courts nor the public can fulfill their proper roles in the CEQA process. . . . [Courts will not] countenance a result that would require blind trust by the public, especially in light of CEQA's fundamental goal that the public be fully informed as to the consequences of action by their public officials." 47 Cal. 3d 376, 404 (1988). The DEIR's discussion of alternatives in the present case fails to live up to these standards. ORIN-114

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[10] The DEIR suggests that "employing flagmen" also will help mitigate *noise* impacts, but does not explain how this will occur. (See DEIR at 5-47.) ORIN-112

A. The DEIR Fails to Consider Alternatives that Would Avoid Significant Impacts.

The DEIR discusses a handful of alternative sites and designs, but many of these alternatives would result in substantially the same environmental impacts as the proposed Project. For example, the proposed alternative site for the Happy Valley Pumping Plant is close to residences and likely to cause significant, unmitigated traffic and noise impacts. (See DEIR at 6-33, 6-35.) Although the alternative site would require a shorter pipeline, and is located somewhat further from the nearest residence (100 feet rather than 50 feet), long-term road closures, detours, and noise impacts would still occur during construction and operation. CEQA requires an EIR to consider alternatives that will avoid or substantially lessen such impacts; this DEIR fails to do so. ORIN-115

Other alternatives discussed in the DEIR, such as the Aqueduct alternative calling for conversion of the existing Lafayette Tunnel No. 1 to a two-way tunnel capable of carrying treated water east toward Lafayette, would not attain the Project's basic objectives. (DEIR at 6-59.) The DEIR does not discuss whether this alternative would avoid or substantially lessen the environmental impacts of the Project. In any event, the DEIR rejects this alternative because westbound raw water supplies would not be adequate during dry years—and thus presumably would fail to meet Project objectives. (See id.) Again, this does not satisfy CEQA's requirements. ORIN-116

Finally, it bears mention that alternative tunnel alignments that would reduce open trenching along the eastern segment of the Aqueduct were rejected due to a lack of site-specific geotechnical information. (See DEIR at 6-60.) This is somewhat ironic, given that a site-specific geotechnical study has yet to be performed for the preferred Aqueduct tunnel alignment, and that key information about the geology, hydrology, and potentially "gassy" character of the tunnel also are missing from the DEIR. Again, it is improper to defer this kind of basic analysis until after project approval—which the DEIR itself seems to recognize in rejecting these alternative alignments. ORIN-117

B. The DEIR's Comparison of Alternatives is Flawed.

In addition to Alternatives 1 and 2, the DEIR briefly describes four other alternatives, derived from EBMUD's Water Treatment and Transmission Master Plan. These alternatives, however, do not constitute a "reasonable range" as required by CEQA. All six alternatives involve extensive construction at the Orinda WTP; indeed, each of Alternatives 3 through 6 would have impacts in Orinda that are basically identical to those of Alternatives 1 and 2. (DEIR at 6-46 (Table 6-7).) The DEIR even concedes that "Alternative 4 does not meaningfully add to the range of EIR alternatives." (DEIR at 6-51.) Therefore, the range of alternatives considered in any detail for the Orinda WTP is effectively limited to Alternatives 1 ORIN-118

and 2. This binary choice between projects with significant impacts falls short of a "reasonable range." ORIN-118

Moreover, the DEIR omits information that would assist the public and decision-makers in assessing the environmental benefits and costs of various alternatives. For example, the DEIR contains a chart of "Alternatives Screening Criteria," containing numerical evaluation criteria for various factors, but does not provide a chart of raw scores for each alternative and evaluation category. (See DEIR at 6-50 (Table 6-9).) Raw scores would enable easy comparison of the how various alternatives performed according to different criteria. The DEIR, however, filters these scores through a set of five "weighting scenarios," without explaining why those particular weighting scenarios were chosen or what balance of criteria they were designed to elicit. (DEIR at 6-51 (Table 6-10).) Without raw scores and an explanation of the weighting criteria, the rankings provided in Table 6-11 are basically opaque to decision-makers. Rankings of this type frustrate, rather than facilitate, informed choices between alternatives. ORIN-119

C. The DEIR's Discussion of Meaningful Alternatives to Water Treatment in Orinda is Cursory and Conclusory.

The City of Orinda appreciates EBMUD's attention to the City's comments on the Notice of Preparation for the Project. The DEIR's discussion of alternatives that the City proposed, however, raises more questions than it answers.

For example, under "Alternative A," the DEIR evaluated two alternative sites for relocation of the Orinda WTP, both of which would require construction of a conventional plant to treat lower-quality reservoir source water. (DEIR at 6-52 to 6-53.) Obviously, construction of a full conventional treatment plant could be more costly and environmentally damaging than construction of an in-line filtration plant. The DEIR did not explore whether water from the Mokelumne Aqueducts could feasibly be delivered to an alternative treatment location. Alternatives B and C suffer from similar problems; the DEIR's brief descriptions of the various components of each alternative beg the question whether other configurations could help reduce costs and achieve EBMUD's goals. Finally, the DEIR never adequately explains its "objectives regarding source water quality," or how those objectives render particular alternatives more or less feasible. (See DEIR at 2-22 to 2-23, 6-54 to 6-55.) ORIN-120

VII. The DEIR Must Be Revised and Recirculated.

For the foregoing reasons, the DEIR does not comply with CEQA. Due to the many omissions outlined herein, preparation of an adequate document would require significant new information. This could necessitate recirculation of the DEIR. (CEQA Guidelines § 15088.5(a).

ORIN-121

Very truly yours,

SHUTE, MIHALY & WEINBERGER LLP

Robert "Perl" Perlmutter

Kevin P. Bundy

EXHIBITS

1. Letter from Darwin Myers Associates to E. Ursu, Planning Director, re: Draft Environmental Impact Report (August 8, 2006).

2. Comments by Janice Carey, City Engineer, City of Orinda, on EBMUD WTTIP Draft Environmental Impact Report (August 8, 2006).

3. California Regional Water Quality Control Board, San Francisco Bay Region, Region Wide General National Pollutant Discharge Elimination System (NPDES) Permit for Discharges from Surface Water Treatment Facilities for Potable Supply (General Permit), Order No. R2-2003-0062 (NPDES Gen. Permit No. CAG382001) (June 18, 2003).

4. Patrick Hoge, Water-Main Breaks Proving Deadly to Fish, San Francisco Chronicle (July 15, 2006), at B-1(available at http://sfgate.com/cgi-bin/article.cgi?file=/c/a/2006/07/15/BAGAVJVLHG1.DTL).

5. Bay Area Air Quality Management District ("BAAQMD"), Bay Area Pollution Summary 2004 (at http://www.baaqmd.gov/pio/aq_summaries/pollsum04.pdf).

6. Excerpts from Bay Area Air Quality Management District, BAAQMD CEQA Guidelines: Assessing the Air Quality Impacts of Projects and Plans (Dec. 1999).

7. California Office of Health Hazard Assessment, Determination of Acute Reference Exposure Levels for Airborne Toxicants, Acute Toxicity Summary, Hydrogen Sulfide (March 1999), at C-181 (available at http://www.oehha.ca.gov/air/acute_rels/pdf/7783064A.pdf).

8. BAAQMD Rules and Regulations, Regulation 7 (odorous substances).

9. BAAQMD Rules and Regulations, Regulation 9, Rule 2 (inorganic gaseous pollutants).

DARWIN MYERS ASSOCIATES
ENVIRONMENTAL RESEARCH ■ ENGINEERING GEOLOGY

August 8, 2006

Emanuel Ursu, Planning Director
City of Orinda
P.O. Box 2000
14 Altarinda Road
Orinda, CA 94563

Subject: **Draft Environmental Impact Report**
East Bay Municipal Utility District
Water Treatment and Transmission Improvement Program
SCH #2005092019

Dear Mr. Ursu,

At your request we reviewed the geologic and geotechnical aspects of the Draft Environmental Impact Report (DEIR) prepared for the EBMUD project, focusing on the facilities proposed within the City of Orinda.

Our scope of work included review of the Geology, Soils, and Seismicity chapter of the DEIR. We also reviewed the primary documents used in preparation of this chapter, including EBMUD (1990),[1] Geomatrix (1998),[2] Jacobs Associates (2005)[3] and AGS, Inc. (2005).[4] In general, it is our opinion that neither the DEIR nor the supporting documents contain site-specific geologic or geotechnical information sufficient to evaluate the impacts of the project. Our specific comments are as follows: ORIN-122

1. Setting

The DEIR's discussion of the project's geologic setting does not characterize site conditions for the project components, nor does it reference any site-specific geotechnical ORIN-123

[1] EBMUD, 1990, *Geotechnical Investigation Report, Emergency Power Improvement, Orinda Filter Plant, Orinda, California.* EBMUD Job #49003 (July 1990).

[2] Geomatrix, 1998, *Final Report, Walnut Creek Water Treatment Plant Expansion, Seismic Study - Phase II,* Geomatrix Job #3970 (October 30, 1998).

[3] Jacobs Associates, 2005, *Conceptual Study for EBMUD WTTIP Lamorinda Tunnel,* JA Job #JN3941.0 (September 30, 2005).

[4] AGS, Inc., 2005, *Geotechnical Impact Assessment, EBMUD Water Treatment and Transmission Improvements Program (WTTIP), Contra Costa and Alameda Counties, California.* AGS Job #KE0304A (December, 2005).

investigations prepared for the various project components. Rather, it describes the general geology and topography of the California Coast Ranges, relying chiefly on published maps and results of investigations performed for other purposes. There appear to be no original geologic maps, and no geologic cross-sections, for the project component locations. The maps included in the DEIR are inadequate for analysis. For example, an interpretative map is presented in the DEIR which characterizes geologic hazards on a site in Orinda (Figure 3.4-2). The map scale is approximately 1" = 2,285 ft; landslide and liquefaction hazards are rated, but the boundaries of the hazard areas are not defined, and the criteria used in rating are not specified. Moreover, the DEIR does not clearly link the hazard rating for the site to the assessment of impacts. The DEIR's overall lack of information on the geology of specific sites makes it impossible to evaluate its conclusions regarding particular impacts and mitigation measures. ORIN-123

2. Project Impacts and Mitigation Measures

Because EBMUD has not yet performed detailed engineering geologic or geotechnical studies for the proposed facilities, the DEIR's approach to impact assessment remains largely conceptual. Put another way, many of the project components in the City of Orinda do not appear to be analyzed at a "project level" of detail as the DEIR claims. ORIN-124

One such component is the Orinda-Lafayette Aqueduct, a tunnel that is to link the Orinda Water Treatment Plant with facilities in Lafayette, approximately 2 miles to the southeast. A major issue for the tunnel is treatment and disposal of the groundwater that will likely infiltrate the tunnel during construction. According to Jacobs Associates (2005), experience with other tunnels in the general area indicates that major ground water infiltration problems are not anticipated. However, absent site-specific geotechnical studies, neither the Jacobs Associates report nor the DEIR has any way of predicting in detail the volume of ground water or its impurities. Typically, ground water pumped from tunnel construction includes sediment, traces of hydraulic oil, cement (from concrete and grouting operations), and minerals leached from the rock. The pH of the ground water also will need to be monitored because some soils in the vicinity are known to be corrosive. The Jacobs Associates report indicates that sedimentation basins will be needed on the ball field site to treat groundwater prior to discharge into San Pablo Creek, and that this phase of construction may require tertiary water treatment and/or an oil boom to meet water quality standards. The details of design of the groundwater treatment process, however, are not revealed in the DEIR, so the effectiveness of the process cannot be intelligently evaluated. ORIN-125

Table 3.4-5 presents a summary of other potential geology, soil and seismicity impacts resulting from the Orinda-Lafayette Aqueduct. The table indicates that significant slope stability, groundshaking, expansive soils and liquefaction impacts can be mitigated to a less-than-significant level. Because the project was analyzed only at a conceptual level, ORIN-126

however, required mitigation measures for impacts are not prescribed at a level of detail sufficient for proper evaluation. ORIN-126

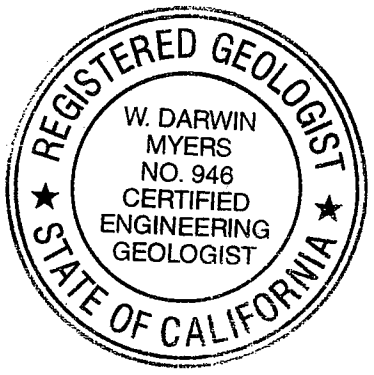
Additional geotechnical issues for the tunnel include squeezing ground (which can bind the tunneling equipment and cause delays), the possible presence of combustible gas, and the possibility of encountering dense rock/cemented rock that will slow construction or require special measures (e.g., blasting). Any one of these issues could dramatically alter the DEIR's assumptions about the duration of construction, the need for particular mitigation measures, and the ultimate environmental impacts of the tunnel. A detailed, site-specific geotechnical investigation might have answered many of these questions, and should have been included in the DEIR. ORIN-127

EBMUD should follow the example of other recent EIRs for projects in Orinda which contained detailed, site-specific geotechnical information. Recently the City of Orinda authorized commencement of grading on the Montanera project at the Gateway interchange off Highway 24. The EIR for that project identified detailed, specific mitigation measures to ensure that the project was consistent with its environmental setting and that the planned improvements were designed to yield a stable site. The DEIR for the EBMUD project should reflect a similar level of detail. ORIN-128

We trust this letter provides the evaluation and comments that you requested. Please call if you have any questions.

Sincerely,
DARWIN MYERS ASSOCIATES

Darwin Myers, CEG 946
Principal



EBMUD WATER TREATMENT AND TRANSMISSION IMPROVEMENTS PROGRAM

Draft Environmental Impact Report
SCH#2005092019

Comments By: Janice Carey, City Engineer
City of Orinda

Dated: August 8, 2006

Vol. 1 Maps D Need more information on the High Rate Sedimentation Unit adjacent to Manzanita Drive. Need information on the overall size of this unit and how far it is set back from the edge of pavement, the graphic suggests that the unit is within the Manzanita Drive road easement. ORIN-129

Page 2-36 **Table 2-7 Expected Construction Works Hours for WTTIP Project**
The proposed work hours for construction of WTTIP projects within the City of Orinda do not comply with the City noise ordinance. ORIN-130

Page 2-74 **Happy Valley Pumping Plant and Pipeline - Construction Characteristics**
Need reference to proposed "offsite parking location" construction workers are being transported to and from. ORIN-131

Page 3.2-6 **Orinda-Lafayette Aqueduct**
First paragraph - references the tunnel exit that would be constructed along El Nido Ranch Road. All maps indicate the tunnel exit would be constructed along East Altarinda Road near St. Stephens Drive. ORIN-132

Page 3.2-15 **Impact 3.2-1: Division of an established community.**
Mitigation measures to widen Happy Valley Road and provide left turns in and out of the Sunnyside Pumping Plant may be required at this blind curve. ORIN-133

Page 3.2-17 **Orinda WTP**
The asphalt trail along the north side of Camino Pablo along the southerly side of the Orinda WTP is used by school children walking to and from Wagner Ranch School. Any disruption in this path will require mitigation measures. ORIN-134

Page 3.3-1 **Table 3.3-1 Photographs of Existing Visual Conditions - WTTP Project Facility Sites.**
It would be beneficial to include photos of Orinda-Lafayette Aqueduct at St. Stephens/East Altarinda shaft site and a photomontage with landscape improvements. ORIN-135

Page 3.3-41	**Orinda-Lafayette Aqueduct** Discussion of proposed mitigation measures for landscape improvements at the tunnel shaft at St. Stephens/East Altarinda are missing and need to be included.	ORIN-136
Page 3.5-5	**Orinda-Lafayette Aqueduct** Watercourses in Lafayette are cited, but no mention is made of any Orinda watercourses though they are listed in Table 3.6-2 .	ORIN-137
Page 3.5-26	**Table 3.5-3 Summary of Applicable Requirements/Measures-Impact 3.5-1** Sunnyside Pumping Plant may require an Encroachment Permit from the City of Orinda for related roadway improvements that may be required on Happy Valley Road.	ORIN-138
Page 3.8-3	**Table 4.8-1 Characteristics of Roadways in the Project Area** Orinda-Lafayette Aqueduct exit shaft location is incorrectly identified throughout the Draft EIR. The existing shaft is located adjacent to East Altarinda Drive. Roadway characteristics on East Altarinda Drive are from Ellen Court (correct spelling from Elen) to St. Stephens Drive.	ORIN-139
Page 3.8-9	**Table 3.8-4 Summary of Applicable Mitigation Measures - Impacts 3.8-1 to 3.8-7** Measure 3.8-7 Document Pre- and Post-construction Pavement Conditions, and Repair as Required - The City of Orinda requires this column be marked for: Orinda WTP Alternative 1; Orinda WTP Alternative 2; Orinda-Lafayette Aqueduct Alternative 2 only; and Sunnyside Pumping Plant.	ORIN-140
Page 3.8-10	**Trip Generation - Overview** The proposed work hours for construction of WTTIP projects within the City of Orinda do not comply with the City noise ordinance. Implementation of mitigation measure 3.10-1b, requiring a change in work hours, will affect the Draft EIR's assumptions about construction traffic and associated noise and air pollution. Therefore, additional analysis of trip generation is required. This analysis also must consider the impact of shorter working hours on the overall duration of construction (i.e., the dates to begin and complete construction) of the proposed projects.	ORIN-141
Page 3.8-12	**Table 3.8-5 Estimated Maximum Vehicle Trip Generation - By WTTIP Project** Orinda-Lafayette Aqueduct Alternative 2 Pipeline Installation - Change haul route from Altarinda Drive to East Altarinda Drive to match actual location.	ORIN-142
Page 3.8-17	**Table 3.8-6 Methods for Maintaining Traffic Flow Affected by Project Construction** Orinda-Lafayette Aqueduct (pipeline portion) - Change Roadway/Segment from Altarinda Drive to East Altarinda Drive to match actual location.	ORIN-143

Page 3.8-17 **Table 3.8-6 Methods for Maintaining Traffic Flow Affected by Project Construction**
Happy Valley Pumping Plant and Pipeline - An alternate method to maintain traffic flow shall be considered on Miner Road and on Lombardy Lane. The City of Orinda would not look favorably on road closure with detour routing on Miner Road or on Lombardy Lane. Additional analysis of feasible alternatives to road closure must be conducted so that one lane of controlled traffic can be maintained along these heavily traveled roadways. ORIN-144

Page 3.8-19 **Project Impact - Stationary Locations (WTPs, Reservoirs, and Pump Plants)**
Orinda WTP - This section makes no reference to these temporary parking demands for the Happy Valley Pumping Plant and Pipeline location (see Page 2-74 "Happy Valley Pumping Plant and Pipeline - Construction Characteristics" proposes "offsite parking location" construction workers being transported to and from site). ORIN-145

Page 3.8-19 **Project Impact - Stationary Locations (WTPs, Reservoirs, and Pump Plants)**
Orinda WTP - Construction of the Clearwell on the ballfield site must be taken into account when discussing the availability of parking spaces onsite for workers; i.e., there is no consideration mentioned for construction equipment and staging in construction of the Clearwell. ORIN-146

Page 3.8-20 **Impact 3.8-5: Access disruption to adjacent land uses and streets for both general traffic and emergency vehicles, as well as disruption to bicycle/pedestrian access and circulation.**
Additional schools affected by construction include Wagner Ranch School and Sleepy Hollow School in Orinda. ORIN-147

Page 3.8-22 **Impact 3.8-6: Disruptions to transit service on pipeline alignment routes.**
Pipeline installation in Miner Road and Lombardy Lane fails to address bus service to and from Sleepy Hollow School provided by Durham School Services. ORIN-148

Page 3.8-24 **Orinda WTP**
The sentence "Construction-generated traffic would be temporary and therefore would not result in long-term degradation in operating conditions or level of service on project area roadways" is contradicted by examples of local roads that could be adversely affected as noted on page 3.8-23 "Impact 3.8-7: Increased wear-and-tear on the designated haul routes used by construction vehicles." Additionally, increased truck traffic significantly impacts pavement condition. ORIN-149

Page 3.8-27 **Table 3.9-6 Maximum One-Way Truck Trips by Project**
The number of truck trips suggests an estimated 100%-500% increase in truck traffic on Moraga Way (compared with data collected by the City). While the ORIN-150

number of vehicle trips may be considered insignificant, the total number of truck trips suggests that there may be an adverse effect on the pavement of the City's arterials. ORIN-150

Page 3.10-1 thru 56 **3.10 Noise and Vibration**
Proposed work hours for construction of WTTIP projects within the City of Orinda do not comply with ordinance. ORIN-151

Page 3.12-5 **Table 3.12-3 Schools, Hospitals, and Fire Stations in Project Vicinity**
Correct spelling of Orinda school: El Ray to Del Rey Elementary School
Change name of: North Bay Orinda School to Orinda Academy
Delete Orinda school: Springs Academy
Add Orinda school: Contra Costa Alternative School - 10 Irwin Way ORIN-152

Page 5.7 **5.2.7 Traffic and Circulation**
The Draft EIR states there would be no additive (overlapping) impact on El Nido Ranch Road, but the document does not consider the impacts of individual projects along El Nido Ranch Road. Without analysis of individual impacts, the Draft EIR cannot conclude that there will be no collective impact. ORIN-153

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. R2-2003-0062
NPDES GENERAL PERMIT NO. CAG382001

ORIN-154

REGION WIDE GENERAL NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT FOR DISCHARGES FROM SURFACE WATER TREAMENT FACILITIES FOR POTABLE SUPPLY (GENERAL PERMIT)

June 18, 2003

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CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

FINDINGS
The California Regional Water Quality Control Board, San Francisco Bay Region, hereinafter called the Board, finds that:

General

1 *Authority*. States may request authority from U.S. EPA to issue general NPDES permits pursuant to Title 40, Code of Federal Regulations, (CFR), Part 122.28. On June 8, 1989, the State Water Resources Control Board (the State Board) submitted an application to the U.S. Environmental Protection Agency (U.S. EPA) requesting revisions to its NPDES Program in accordance with 40 CFR 122.28, 123.62, and 403.10. The application included a request to add general permit authority to its approved NPDES Program. On September 22, 1989, the U.S. EPA, Region 9, approved the State Board's request and granted authorization for the State to issue general NPDES permits.

2. *Coverage*. This National Pollutant Discharge Elimination System (NPDES) General Permit regulates discharges from surface water treatment facilities (See finding below for description of surface water treatment facility). This General Permit does not cover discharges from membrane filtration processes. However, this General Permit can cover other discharges from membrane filtration facilities, which are similar to those from a surface water treatment facility. These include product water from pipeline breaks, and raw water bypasses. The following are examples of discharges from surface water treatment facilities. This is not a complete list. Discharger should provide a complete list of discharges from its facility in the Notice of Intent. ORIN-154

   a. Filter backwash water discharge and storage/settling basin discharge;
   b. Discharges from treatment unit overflow and broken waterline within the treatment facility;
   c. Leakage water;
   d. Treatment unit dewatering/drainage water;
   e. Treatment system flushing water during hydrotesting with facility start-up after facility shut down;
   f. Facility on-site water storage facility drainage;
   g. Excess raw water release if the Discharger alters the raw water at the treatment plant or upstream of the treatment plant, in any way, such as addition of chlorine, or other chemicals;

   These discharges are described in detail under Findings 14 through 20 of this General Permit.

   This General Permit does **not** cover the discharges listed below:
   a. Discharges to a sanitary sewer system;
   b. Sewage generated at the facility;
   c. Discharges from water conveyance systems outside the treatment facility;
   d. Discharges from raw/source water reservoir;
   e. Raw water, which is not altered by the Discharger, and
   f. Any discharge that is already covered under an individual NPDES permit or Waste Discharge Requirement (WDR).

3. *Notice of Intent (NOI)*. Persons seeking coverage under this General Permit shall submit an NOI. The NOI shall be submitted using the form attached to this General Permit. The NOI shall be accompanied by all the required information. A separate NOI must be submitted for each treatment facility.

4. *Notice of General Permit Coverage (NGPC)*: Board staff will review the NOI and notify the Discharger or its duly authorized representative if the NOI is complete or incomplete, and whether the proposed activity or discharge can be covered under this General Permit. After receipt of a complete NOI, the Executive Officer will issue a NGPC. Coverage under this General Permit starts from the effective date of the NGPC.

5. *Notice of Non-Applicability.* If owners or operators of surface water treatment facilities determine that this General Permit is not applicable to their facility(ies), the owner or operators of the facilities are required to submit a Notice of Non-Applicability to be exempted from this General Permit requirement. Any discharges from the exempted facilities will not be covered under this General Permit.

6. *Annual Waste Discharge Fee for Routine Discharges.* All Dischargers subject to this General Permit shall pay its annual fee in accordance with Title 23, Section 2200 of California Code of Regulation (revised on October 3, 2002). The annual fee for routine discharges is based on discharge flow rates stated on NOI forms, which is considered as discharge flow rate permitted by this Order. The first payment of annual fee shall be submitted with the NOI. This fee is subject to change if Title 23 changes.

7. *Annual Waste Discharge Fee for Non-Routine (unplanned or emergency) Discharges.* Some facilities only experience occasional emergency discharges, such as from instrument or equipment malfunctions and water pipe breaks. Those infrequent discharges may release very large volumes of water at one time. It is difficult to predict the maximum discharge volume or discharge flow rate. This general permit requires the facility which only discharges on emergency basis to pay a minimum annual fee of $1000. However, it is the intent of the Board to increase the fee base for such discharges in a subsequent year to an amount reflective of actual discharge flow rates for facilities that do experience emergency discharges. ORIN-154

8. The U.S. Environmental Protection Agency (EPA) and the Board have classified the discharges covered by this General Permit as minor discharges.

Relationship of General Permit and Individual Permit

9. Although a discharge may be eligible for coverage under this General Permit, the Board may determine that the discharge would be better regulated under an individual or another general NPDES permit, or under a WDR for discharges to land. If an individual or general NPDES permit is issued, or if a WDR is issued for the discharge, then the applicability of this General Permit to the discharge is immediately terminated on the effective date of the individual permit or WDR.

Relationship of This General Permit to Municipal Storm Water NPDES Permits

10. The Board has issued municipal storm water NPDES permits to several cities and counties, including Alameda County, Santa Clara County, San Mateo County, Contra Costa County, City of Fairfield, City of Vallejo and City of American Canyon. The municipal storm water NPDES permits prohibit discharges other than storm runoff with certain exceptions. One of the exceptions is discharge from potable water sources. In accordance with their storm water permits, some cities and counties require drinking water treatment facilities within their jurisdiction to develop and implement best management practices for discharges from the water treatment facilities to their storm drain system. In order to regulate similar discharges consistently, this General Permit will supersede any coverage that the storm water permits may have provided for discharges from within surface water treatment

facilities. This General Permit covers only those discharges from sources within surface water treatment facilities, and not those that originate outside plant boundaries. Potable water discharges that are not covered by this General Permit will still be covered under applicable municipal storm water permit. Existing coverage under the local municipal storm water permit will continue for discharges from within treatment facilities until a Notice of General Permit Coverage is issued to the Discharger. Dischargers are required to comply with all conditions in this General Permit and conduct self-monitoring as required by the monitoring program attached to this Order for those discharges within treatment facilities upon receipt of a Notice of General Permit Coverage. Dischargers who have developed and implemented Best Management Practices (BMPs) plans for potable water discharges under the municipal storm water permit, may use these same BMPs plans to satisfy the BMPs plan requirement of this General Permit as long as the BMPs plans contain all items required by this Order.

Surface Water Treatment Facilities

11. Surface water treatment facilities defined in this General Permit normally include one or several of the following treatment process for water treatment: coagulation/flocculation, sedimentation, filtration and disinfection.

    Coagulation/flocculation This is step causes particle aggregation in the water being treated. Chemicals (coagulants) are added to the water to stabilize charges on the particles in the water, followed by gentle stirring to transform the suspended particles into larger floc. The chemicals used generally include aluminum sulfate, alum-polymer blend, iron-polymer blends, ferrous sulfate, ferric chloride, and lime.

    Sedimentation This process allows suspended particles to settle out.

    Filtration This process remove more suspended material by passing the water through filter media. Commonly used filter media include crushed anthracite coal, garnet, sand, and granular activated carbon (GAC), green sand, or combination of two or more filter media.

    Disinfection Disinfection reduces number of pathogenic microorganisms in water. Chlorine gas, chlorine dioxide, ozone and ultraviolet radiation are commonly used as disinfectants. Many treatment facilities add both ammonia and chlorine, either sequentially or simultaneously, for disinfection or chloramination. Chloramination prolongs the stability of residual disinfectant during distribution, and lessens the likelihood of forming chlorophenolic taste and odor substances, and trihalomethane, which is a carcinogen.

    Pre-treatment Some treatment facilities treat the source water before the coagulation/flocculation process. Pre-treatment processes include use of chemicals to improve water quality, and/or mechanical equipment to remove large particles in the raw water before coagulation/flocculation.

    Post-treatment Most treatment facilities further treat the water after disinfection. Post treatments generally include fluoridation for dental health, pH adjustment for corrosion prevention of water distribution system, and chloramination to add ammonia to extend chlorine residual residence time.

12. *Existing Facility.* An Existing Facility is a facility that has been in operation on or prior to the effective date of this General Permit. Currently, some Existing Facilities are regulated under individual NPDES permits for their discharges prior to adoption of this General Permit. Other Existing Facilities do not have an NPDES permit. This Order requires the Dischargers from all

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Existing Facilities (or Existing Dischargers) to submit a site-specific BMPs plan together with the NOI to obtain coverage under this General Permit.

13. *New Facility.* A New Facility is an one that is still under construction, or that has completed its construction but has not commenced discharge to State water by the effective date of this General Permit. A Discharger from a New Facility (New Discharger) must submit an NOI at least 180 days prior to commencement of discharge. A New Discharger has the option of submitting its site-specific BMPs plan 30 days prior to its operation. This is so because the New Discharger can develop a site-specific BMPs plan that is specific to its operation and to better identify which areas of the facilities' operations that need BMPs.

General Description of the Discharges Covered by This Permit

14. *Filter backwash water discharge and storage/settling basin discharge.* Filters require periodic backwashing to remove accumulated solids. The backwash frequency depends on the quality of the incoming water and number of hours the filter has been in service. The volume of backwash water generated during backwash varies from a few hundred thousand gallons to over a million gallons depending on the number of filters backwashed, the frequency of backwashing, the size of the filter and water quality, etc.

    Many facilities recycle the backwash water by pumping it into storage/settling basins, then into the incoming water lines to be treated together with the raw water. Most of facilities discharge backwash water intermittently; a few facilities do not recycle their backwash and discharge on a continuous basis. ORIN-154

    Other reasons for discharge of backwash water are operational error or severe storm events that result in basin overflow. Some facilities divert all their wastewaters, such as backwash water, treatment unit rinse water, treatment unit overflows, etc. and storm water runoff from the property to storage/settling basins. Discharge from the storage/settling basin consists of various wastewaters accumulated in the basin.

15. *Discharges from treatment unit overflow and broken waterline within the treatment facility.* These are normally non-routine discharges due to operational or instrument errors that cause one or several treatment units to overflow. These discharges are normally non-routine and emergency in nature. The overflow discharges to State waters directly or via a storm drain system.

16. *Leakage water.* Some filters and other treatment units include a system that collects any water leakage from the system. The collected leakage water is normally diverted to the backwash water-settling basin and discharged together with backwash water. Alternatively, the sub-drain system may connect to storm drain system and the drainage water discharges through storm drain system to receiving water.

17. *Treatment unit dewatering/drainage water.* Occasionally, treatment units must be taken out of commission for maintenance, or for seasonal shutdown of the facility. The drainage water is diverted to a storage/settling basin before discharge or is discharged directly to State waters.

18. *Treatment system flushing water during start-up after facility shut down.* Some treatment facilities are operated seasonally. When the facility is brought on line for the season, the treatment units and piping systems must be flushed. Water from system flushing flows to a storage/settling basin before discharge or is discharged directly to State waters.

19. *On-site water storage facility drainage.* Some facilities store clean water on-site for filter backwash. Some facilities store treated water on-site before distribution to their customers. Occasionally, these water storage facilities require maintenance and need to be drained. The drainage water sometimes discharges to State waters.

20. *Excess raw water released from the treatment facility.* Some facilities receive raw water transported by aqueducts from remote locations. Water demand varies hourly. Since it is infeasible to frequently adjust aqueduct flows to match water demand, excess aqueduct flows may need to be released to State waters. Sometimes, water treatment facilities need to dispose raw water (incoming water) due to operational situations. The general permit does not regulate those raw water discharges that Discharger has not altered the raw water quality, but it does apply if chemicals have been added, such as for corrosion control and/or algae control.

Applicable Plans, Policies and Regulations

Water Quality Control Plan (or Basin Plan)

21. The Board adopted a revised Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan) on June 21,1995. This updated and consolidated plan represents the Board's master water quality control planning document. The State Board and the Office of Administrative Law approved the revised Basin Plan on July 20, 1995, and November 13, 1995, respectively. A summary of the regulatory changes is contained in Title 23 of the California Code of Regulations, Section 3912. The Basin Plan identifies beneficial uses and water quality objectives for waters of the State in the Region, including surface waters and ground waters. The Basin Plan also identifies discharge prohibitions intended to protect beneficial uses. This Order implements the Board's Basin Plan. ORIN-154

22. *Beneficial Uses.* The designated beneficial uses of surface waters throughout the Region may include municipal, domestic, industrial, and agricultural supply; water contact and non-contact recreation; navigation; groundwater recharge and freshwater replenishment; wildlife habitat; cold freshwater and warm freshwater habitat; fish migration and fish spawning; marine habitat; estuarine habitat; shellfish harvesting; areas of special biological significance; and preservation of rare and endangered species. The specific beneficial uses for a specific water body are specified in Chapter 2 of the Basin Plan.

State Implementation Policy (SIP)

23. The State Board adopted the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (also known as the State Implementation Policy or SIP) on March 2, 2000, and the Office of Administrative Law (OAL) approved the SIP on April 28, 2000. The SIP applies to discharges of toxic pollutants in the inland surface waters, enclosed bays and estuaries of California subject to regulation under the State's Porter-Cologne Water Quality Control Act (Division 7 of the Water Code) and the federal Clean Water Act. The SIP establishes implementation provisions for priority pollutant criteria promulgated by the U.S. EPA through the National Toxics Rule (NTR) and California Toxics Rule (CTR), and for priority pollutant objectives established by the Regional Water Quality Control Boards in their water quality control plans (basin plans). The SIP also establishes monitoring requirements for 2,3,7,8-TCDD equivalents, chronic toxicity control provisions, and Pollutant Minimization Program.

24. The SIP allows for categorical exemption for discharges from drinking water conducted to fulfill statutory requirements under the federal Safe Drinking Water Act or the California Health and Safety Code, providing certain conditions are met. The Board finds that there is currently insufficient information with which to certify that discharges covered by this General Permit meet all conditions

for SIP exemption. The Discharger may, at its option, provide the information needed to the Board during the term of this General Permit, if the Discharger wishes the Board to consider this exemption when this General Permit is re-issued in 2008.

California Toxics Rule (CTR)

25. On May 18, 2000, the U.S. EPA published the *Water Quality Standards; Establishment of Numeric Criteria for Priority Toxic Pollutants for the State of California* (Federal Register, Volume 65, Number 97, 18 May 2000, or the CTR). The CTR specifies water quality standards for numerous pollutants, many of which are applicable to the receiving waters covered in this General Permit.

Other Regulatory Bases

26. Water quality objectives and effluent limitations in this permit are based on the SIP; the plans, policies and water quality objectives and criteria of the Basin Plan; CTR; applicable Federal Regulations (40 CFR Parts 122 and 131); NTR; and Best Professional Judgment (BPJ) as defined in the Basin Plan. Discussion of the specific bases and rationale for effluent limits are given in the associated Fact Sheet for this Permit, which is incorporated as part of this Order.

Basin Plan Prohibitions For Which Exceptions Are Necessary

27. *Basin Plan prohibitions.* The Basin Plan contains a prohibition against discharge of any wastewater, which has particular characteristics of concern to beneficial uses at any point at which the wastewater does not receive a minimum initial dilution of at least 10:1 (Prohibition 1 in Table 4-1 of Basin Plan). The Board finds that the discharges permitted under this Order are not subject to this prohibition because they do not contain particular characteristics of concerns to beneficial uses of the receiving waters provided the Dischargers follow Best Management Practices and comply with the requirements of this General Permit. ORIN-154

Requirement for Monitoring of Pollutants in Effluent and Receiving Water to Implement New Statewide Regulations

28. *Requirement for Reasonable Potential Analysis.* As specified in 40 CFR 122.44(d) (1) (i), permits are required to include Water Quality Based Effluent Limitations for all pollutants "which the Director determines are or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any State water quality standard." However, currently there are only six sets of effluent data obtained from five water treatment plants operated by East Bay Municipal Utility District (EBMUD) with no ambient background data.

29. *Effluent and Receiving Water RP Monitoring.* This Order does not include Water Quality Based Effluent Limitations (WQBELs) for toxic pollutants due to lack of data to perform reasonable potential analysis. Instead of requiring data for analysis of full set of priority pollutants, this Order requires Dischargers to monitor just for metals specified in the California Toxic Rule and trihalomethanes (THMs). THMs are a group of four chemicals, chloroform, bromodichloromethane, dibromochloromethane and bromoform. THMs are formed along with other disinfection byproducts when chlorine or other disinfectants are used to control pathogenic organisms in drinking water. This limited monitoring strategy is to focus on those pollutants that the Discharger uses or generates. Schedule for effluent sampling and analysis is specified in Table 1 of Self-Monitoring Program, and schedule for receiving water sampling is specified in Table 3 of the Self-Monitoring Program.

30. *Use Existing data for Effluent and Receiving Water RP Monitoring.*
    (1) THMs, Some Dischargers already collected THMs data from their product water. THMs concentrations are considered to be the highest in product water. THMs data obtained from

product water can be considered as the worst-case scenario. If the analytical methods used to obtain these data are consistent with the methods specified in the SIP, the Dischargers may use these data to satisfy the monitoring requirements for this Order.

(2) Metals, Some Dischargers regularly analyze certain metal contents in their product water. If the samples are representative of the discharge, e.g. for discharge or release of product water, and the analytical methodologies meet requirements specified in Enclosure A of Board's August 6,2001 letter, the Dischargers may use these data to satisfy the monitoring requirements for this Order. However, if the discharge effluent consists other waters, e.g. filter backwash water, Discharger cannot use the data obtained from product water because the effluent qualities are different.

31. *Permit Re-opener*. This Order includes a re-opener provision to allow numeric effluent limitations to be added in the future for any constituent that exhibits reasonable potential to assure continued compliance with the exception to the Basin Plan Prohibitions described in previous Findings. The Board will make this determination based on monitoring results.

Pollutants Limited By This General Permit

32. *Chlorine Residual*. Chlorine is added to the raw water for odor control as well as for disinfection. Chlorine is toxic to aquatic organisms. The Basin Plan contains a toxicity objective stating, "All waters shall be maintained free of toxic substances in concentrations that are lethal to or produce other detrimental responses to aquatic organisms".

33. *Solids*. Filter back wash water has high solids content and requires sedimentation prior to discharge. Solids may be present in the discharges that could cause violation of the Basin Plan's narrative objectives for sediment, settleable material, and suspended material. Some treatment facilities occasionally discharge large amounts of water in a short period due to operation error or equipment or instrument malfunction. High flow rates may cause stream bank erosion and discharging of a large amount of solids further downstream. This General Permit specifies development of a site-specific BMPs plan to minimize these impacts.

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34. *pH*. Lime or sodium hydroxide is added to the water to adjust water pH for corrosion protection in the water conveyance system. Water with high pH content may discharge to the streams and impact aquatic organisms. The Basin Plan contains a toxicity objective stating, "All waters shall be maintained free of toxic substances in concentrations that are lethal to or produce other detrimental responses to aquatic organisms".

35. *Whole Effluent Acute Toxicity*. This Order includes effluent limits for whole effluent acute toxicity because there is reasonable potential for these discharges to cause an exceedance of the toxicity objective. Polymers are added to raw water for coagulation and flocculation and may discharge with filter backwash water and overflows from treatment units prior to filtration. In addition to chlorine and pH, polymers can cause fish toxicity by binding to fish gills. Additionally, acute toxicity has been found in the discharge from an existing discharger. The whole effluent acute toxicity limitation is to implement the Basin Plan's toxicity objective in order to protect beneficial uses of the receiving waters. The Basin Plan contains a toxicity objective stating that "All waters shall be maintained free of toxic substances in concentrations that are lethal to or produce other detrimental responses to aquatic organisms" and that "there shall be no acute toxicity in ambient waters." The whole effluent toxicity limit is to ensure that the discharge will not be acutely toxic to the aquatic organisms in the receiving water. Compliance is based on 96-hour static renewal bioassays conducted in accordance with test methods for acute toxicity bioassays promulgated in 40 CFR Part 136.

BMPs and Monitoring Requirements

36. *Total Polychlorinated Biphenyls (PCBs).* Some water storage facilities were constructed with material with PCBs. PCBs are highly insoluble in water and tend to accumulate in sediments. This Order prohibits discharge of bottom sediments from water storage facilities. This Order also requires Dischargers to develop and implement a BMPs plan for water storage facilities dewatering discharge to eliminate sediment discharge to the maximum extent possible. BMPs plan requires the Discharger to conduct PCBs analysis if he suspects that PCBs was used during the storage facility construction. For this permit purpose, water storage facility is a general term, which includes but is not limited to tanks, ponds, reservoirs or any other water storage unit at the surface water treatment facilities.

37. *Copper and zinc.* Some water agencies add copper compounds to their raw water reservoirs for algae control. Some of existing discharge data also show high copper concentration (higher than CTR criteria). Zinc is used as pipe coating, primer, or in galvanized steel pipe for corrosion control. Zinc may release from corrosion control coating/primer to the water. This Order requires more frequent monitoring of copper and zinc. The monitoring result will be used in the future to determine if there is reasonable potential to cause exceedance of water quality criteria. This Order also requires the Discharger to reduce or eliminate the use of copper compounds in the site-specific BMPs plan to the maximum extent practicable.

38. *Site-Specific BMPs Plan.* This Order requires Dischargers seeking coverage under this General Permit to develop, update annually, and implement a site-specific BMPs plan for preventing and controlling pollutant discharges. The purpose of the site-specific BMPs plan is to (1) control and abate the discharge pollutants from the facility to surface waters; (2) achieve compliance with Best Available Technology Economically Achievable (BAT) or Best Conventional Pollutant Control Technology (BCT) requirement; and (3) achieve compliance with applicable water quality standards. ORIN-154

    Dischargers who are already implementing best management practices required by their municipalities under a municipal storm water NPDES permit for pollution prevention at the treatment facilities can submit a copy of its existing BMPs plan, or equivalent plan to the Board.

39. *Permit Re-opener.* This Order includes a re-opener provision to allow additional numeric effluent limitations to be added in the future for any constituent that exhibits reasonable potential. The Board will make this determination based on monitoring results.

Anti-degradation

40. Anti-degradation Policies: Federal Regulations (40 CFR 131.12) and State Board Resolution No. 68-16, "Statement of Policy with Respect to Maintaining High Quality of Waters in California" requires that any increase in pollutant loading to a receiving water shall be consistent with the following:

    a. Existing in-stream water uses and the level of water quality necessary to protect existing beneficial uses shall be maintained and protected; and

    b. Where the quality of the waters exceeds levels necessary to support propagation of fish, shellfish, and wildlife and recreation in and on the water, the quality shall be maintained and protected unless the State finds, after full satisfaction of the intergovernmental coordination and public participation provisions of the State's continuing planning process, that allowing lower water

quality is necessary to accommodate important economic or social development in the area in which the waters are located.

41. Anti-degradation Results: This permit complies with State and Federal "anti-degradation" policies:

    a. The conditions and effluent limitations established in this Order for discharges of treated effluent from surface water treatment facilities to surface waters in this Region ensure that the existing beneficial uses and quality of surface waters in this Region will be maintained and protected; and

    b. Discharges regulated by this Order should not lower water quality if the terms and conditions of this Order are met.

CEQA and Public Notice

42. *NPDES Permit.* This Order serves as an NPDES General Permit. Adoption of this Order will not have significant water quality impacts and is exempt from the provisions of Chapter 3 (commencing with Section 21000) of Division 13 of the Public Resources Code [California Environmental Quality Act (CEQA)] pursuant to Section 13389 of the California Water Code. In addition, with respect to existing facilities, adoption of this Order is exempt from CEQA pursuant to California Code of Regulations, Title 14, Section 15301, because it involves negligible or no expansion of use of existing facilities.

43. *Notification.* Existing Dischargers and interested agencies and persons have been notified of the Board's intent to issue this General Permit and have been provided an opportunity to submit their written views and recommendations. Board staff prepared a Fact Sheet and Response to Comments, which are hereby incorporated by reference as part of this Order.

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44. *Public Hearing.* The Board, in a public meeting, heard and considered all comments pertaining to this General Permit.

IT IS HEREBY ORDERED, pursuant to the provisions of Division 7 of the California Water Code, regulations, and plans and policies adopted hereunder, and to the provisions of the Clean Water Act and regulations and guidelines adopted hereunder, that all Dischargers indicating their intention to be regulated under the provisions of this General Permit shall comply with the following:

A. DISCHARGE PROHIBITIONS

1. Discharge of effluent/treated wastewater at a location or in a manner different from that described in the NOI is prohibited.

2. Discharge of chlorinated water without dechlorination is prohibited.

3. The discharge of bottom sediments from water storage facilities to State waters in such manner as to cause nuisance or adversely affect beneficial uses is prohibited.

4. On-site storage of oil, fuel and any other chemical storage causing contamination of storm water runoff and/or water and wastewater discharge is prohibited.

5. The discharge shall not cause a condition of pollution, contamination, or nuisance as defined in Clean Water Act.

B. EFFLUENT LIMITATIONS

The effluent from each discharge outfall(s) as defined in the NOI shall not exceed the following limits:

1. Conventional Pollutants

Constituents	Instantaneous Max.	Daily Max.	Monthly Average	Weekly Average
a. Total Suspended Solids, mg/L			30	45
b. Total Chlorine Residual, mg/L [1]	0.0			
c. pH, in pH unit [2]	6.5-8.5			
d. Settleable Matter, ml/L-hr. [3]		1.0		

1 See Self-Monitoring Program footnote [6] for Tables 1, 2 and 4 for compliance consideration.

2 The pH shall not be less than 6.5 and not greater than 8.5 unless the ambient receiving water has a pH greater than 8.5. In this case, the effluent pH shall not be greater than 0.5 unit of the receiving water pH value.

3. Settleable matter limit only applies to on-site water storage facility dewatering effluent discharge.

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2. Whole Effluent Acute Toxicity

Representative samples of the effluent shall meet the following limits for acute toxicity. Compliance with these limits shall be achieved in accordance with Provisions F.9 and F.10 of this Order.

For Continuous discharge

a. The survival of bioassay test organisms in 96-hour static renewal bioassays of undiluted effluent shall be:
   i. a 3-sample median value of not less than 90 percent survival [b.i.]; and
   ii. a single-sample maximum of not less than 70 percent survival [b.ii.].

b. These acute toxicity limits are further defined as follows:
   i. 3-sample median limit:
   3-sample median is defined as follows: if one of the past two or fewer samples shows less than 90 percent survival, then survival of less than 90 percent on the next sample represents a violation of the effluent limitation.

   ii. Single-sample maximum:
   Any bioassay test showing survival of 70 percent or greater is not a violation of this limit. A bioassay test showing survival of less than 70 percent represents a violation of this effluent limit.

For Intermittent discharge
Any bioassay test showing survival of 70 percent or greater is not a violation of this limit. A bioassay test showing survival of less than 70 percent represents a violation of this effluent limit.

C. RECEIVING WATER LIMITATIONS

1. The discharge of waste shall not cause the following conditions to exist in waters of the State at any place and any time:

   a. Erosion to the stream bank and streambed;

   b. Floating materials including solids, liquids, foams and scum, suspendedand or deposited materials in concentration that cause nuisance, or adversely affect beneficial uses;

   c. Bottom deposits or aquatic growths to the extent that such deposits or growths cause nuisance or adversely effect to beneficial uses;

   d. Alteration of temperature or apparent color beyond present natural background levels;

   e. Visible, floating, suspended, or deposited oil or other products of petroleum origin; and

   f. Toxic or other deleterious substances to be present in concentrations or quantities which will cause deleterious effects on wildlife, waterfowl, or other aquatic biota, or which render any of these unfit for human consumption, either at levels created in the receiving waters or as a result of biological concentration.

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2. The discharge shall not cause pH variation from normal ambient pH by more than 0.5 pH units.

3. The discharge shall not increase turbidity above background levels by more than the following:

Receiving Water Background	Incremental Increase
<50 units (NTU)	5 units, maximum
50-100 units	10 units, maximum
>100 units	10% of background, maximum

D. PROVISIONS

1. Notice of Intent (NOI)

Persons who seek coverage under this General Permit shall file a complete NOI (see attachment). Discharger from existing facilities shall submit a complete NOI within 90 days from the effective date of this Order, or submit a request for an extension for the NOI to the Board. If an extension is requested, the Discharger shall provide appropriate justification that more time is needed to complete its NOI. The Executive Officer may grant an extension, but the extension may not go beyond 180 days from the effective date of this Order. Discharger with a New Facilities shall submit a complete NOI at least 180 days prior to commencement of the discharge.

2. Notice of Non-Applicability

If an owner or operator of a surface water treatment facility determines that this General Permit is not applicable to their facilities, the owner or operator of the facility shall submit a Notice of Non-Applicability to be exempted from this General Permit requirement (see attachment).

3. NOI Review

Upon receipt of an NOI application package for its proposed discharge, Board staff will review the application package to determine if the NOI is complete and whether the applicant is eligible to discharge waste under this General Permit.

4. Notice of General Permit Coverage (NGPC)

If the Executive Officer determines that the proposed discharge is eligible to discharge waste under this General Permit and its NOI is complete, the Executive Officer will authorize the discharge by issuing a NGPC. The Discharger is authorized to discharge starting on the effective date of the NGPC. The NGPC will specify type(s) of wastewater and the maximum discharge flow rate allowed. In accordance with 40 CFR 122.28(b)(2)(iv), the Executive Officer may terminate or revoke coverage under this Order for any of the specified causes for an individual permit coverage set forth in 40 CFR 122.28(b)(3).

5. Permit Compliance

The Discharger shall comply with all sections of this General Permit and conditions in the NGPC upon effectiveness of a NGPC. Requirements prescribed by this Order supersede the requirements prescribed in any previous individual permit or Waste Discharge Requirements as of the effective date of the NGPC issued to a Discharger.

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6. Site-Specific BMPs Plan

a. *Existing Dischargers.* Existing Dischargers from Existing Facilities shall submit site-specific BMPs plans together with NOI.

b. Existing Dischargers who are already implementing best management practices required by their municipalities under municipal storm water NPDES permit for pollution prevention at the treatment facilities may, at its option, submit a copy of its existing BMP plan, or equivalent plan to Board in lieu of the BMPs plan required by Provision 6.a. above.

c. *Site-specific BMPs plan requirements.* The site-specific BMPs plan shall address all specific means of controlling the discharge of pollutants from the facility. The required contents of the site-specific BMPs plan are specified in the instruction for the NOI attached to this Order.

d. *New Dischargers.* A New Discharger from a new or proposed facility has the option of submitting its site-specific BMPs plan with the NOI or 30 days before the commencement of the operation.

e. *Implementation and review.* The Dischargers shall implement immediately the site-specific BMPs plans upon submittal to the Board. The Board Executive Officer may require additional pollutant control measures. The Dischargers shall review and update the effectiveness and adequacy of the implemented site-specific BMPs plans annually or as often as necessary. The Dischargers shall submit any updates made to the site-specific BMPs plans annually to the Board by July 1st of each year. If the Discharger decides that the

BMPs plan does not require update in a particular year after complete of its annual review, the Discharger shall submit a letter to the Board certifying that its BMPs plan has been reviewed and no update is necessary for this year. Copies of updated site-specific BMPs plan shall be maintained at the treatment facilities.

f. Annual training requirement. All the field personnel, and on-site supervisors and operators shall receive training on the site-specific BMPs plan at least annually.

7. BMPs plan for effluent discharge from on-site water storage facilities at treatment facility

The Discharger shall submit BMPs plan at least 30 days before the planned date of discharge of dewatering effluent. The Discharger may submit this BMP plan with its NOI if it is available at the time. The BMPs plan shall address all specific means of controlling the discharge of pollutants with the dewatering effluent. The minimum required contents for this BMPs plan is specified in the instruction for NOI attached to this Order.

8. Backwash Water Settling Basin Operation and Maintenance

The backwash water settling basins shall be operated so as to optimize solids settling. The Discharger shall submit appropriate sections in its Operation and Maintenance Manual regarding the basin's operation and maintenance procedures and/or requirements annually to the Board. A letter report describing any updates to a previously submitted Manual would be acceptable in lieu of the Manual itself.

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9. Acute Toxicity Testing

Compliance with the acute toxicity requirements of this Order shall be achieved in accordance with the following:

a. Compliance shall be based on 96-hour static renewal bioassays.

b. The organisms shall be either rainbow trout or fathead minnows unless specified otherwise in writing by the Executive Officer.

c. All bioassays shall be performed according to the latest U.S. EPA promulgated protocol in 40CFR 136, currently, the Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organism, 5th Edition. It is acceptable to use 4th Edition until ELAP certifies the laboratory for the 5th Edition, if the Discharger's laboratory is currently ELAP certified with 4th Edition only.

10. Toxicity Reduction Evaluation Requirement

The Discharger shall monitor and evaluate its effluent in order to demonstrate compliance with the Basin Plan narrative toxicity objective. Compliance with this requirement shall be achieved in accordance with the following except for infrequent intermittent discharges (those occurring no more than six times per year), which are exempted from this Provision.

a. If data from routine monitoring exceed the permit limitation, then the Discharger shall begin a new test in accordance with requirements specified in SMP.

b. If data from accelerated monitoring tests are found to be in compliance with the evaluation parameters, then routine monitoring shall be resumed.

c. If accelerated monitoring tests confirm the permit limit violations, then the Discharger shall submit a work plan for a Toxicity Reduction Evaluation (TRE).

d. The TRE shall be conducted in accordance with the following:

   i. The TRE shall be initiated within 30 days of the date of completion of the accelerated monitoring test observed to exceed permit limit.

   ii. The TRE shall be conducted in accordance with the proposed work plan.

   iii. The TRE needs to be specific to the discharge and Discharger's facility, and be in accordance with current technical guidance and reference materials including U.S. EPA guidance materials. TRE shall be conducted as a tiered evaluation process, such as summarized below:
   (a) Tier 1 consists of basic data collection (routine and accelerated monitoring).
   (b) Tier 2 consists of evaluation of optimization of the treatment process including operation practices, and in-plant process chemicals.
   (c) Tier 3 consists of a toxicity identification evaluation (TIE).
   (d) Tier 4 consists of evaluation of options for additional effluent treatment processes.
   (e) Tier 5 consists of evaluation of options for modifications of in-plant treatment processes.
   (f) Tier 6 consists of implementation of selected toxicity control measures, and follow-up monitoring and confirmation of implementation success.
   (g) The TRE may be ended at any stage if monitoring finds there is no longer consistent toxicity.
   (h) The objective of the TIE shall be to identify the substance or combination of substances causing the observed toxicity. All reasonable efforts using currently available TIE methodologies shall be employed.
   (i) As toxic substances are identified or characterized, the Discharger shall continue the TRE by determining the source(s) and evaluating alternative strategies for reducing or eliminating the substances from the discharge. All reasonable steps shall be taken to reduce toxicity to levels consistent with toxicity evaluation parameters.
   (j) The Board recognizes that acute toxicity may be episodic and identification of causes of and reduction of sources of acute toxicity may not be successful in all cases. Consideration of discretionary enforcement action by the Board will be based in part on the Discharger's actions and efforts to identify and control or reduce sources of consistent toxicity.

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11. Self-Monitoring Program

The Dischargers shall comply with the SMP for this Order as adopted by the Board, or any amended Self-Monitoring Program (SMP) specified in the NGPC. The SMP may be amended by the Executive Officer pursuant to U.S. EPA regulations 40 CFR 122.62, 122.63 and 124.5.

12. Standard Provisions and Reporting Requirements

The Dischargers shall comply with all applicable items of the *Standard Provisions and Reporting Requirements for NPDES Surface Water Discharge Permits, August 1993* (attached). Where provisions or reporting requirements specified in this Order are different from equivalent or related provisions or reporting requirements given in 'Standard Provisions', the specifications of this Order shall apply.

13. Facility Modification/Maintenance

The Dischargers shall submit a schedule for approval by the Executive Officer at least 30 days prior to any modification/maintenance of the facility, which the Discharger determines may result in violation of effluent limitations or alteration of the discharge location(s). The schedule shall contain a description of the modification/maintenance including the altered discharge characteristics or location(s) and its purpose; the period of modification/maintenance, including exact dates and times; and steps taken or planned to reduce, eliminate, and prevent occurrence of non-compliance.

14. Change in Control or Ownership

In the event of any change in control or ownership of land or waste discharge facilities as specified in NGPC, the current Discharger/permittee shall notify the Executive Officer and the succeeding owner or operator by letter at least 30 days in advance of the proposed transfer date. The letter shall include a written agreement between the existing and New Discharger/permittee containing a specific date for transfer of permit responsibility, coverage, and liability between them. The succeeding Discharger shall either submit to the Board its own site-specific BMPs plan or a letter stating the agreement of implementing the existing site-specific BMPs plan from the previous Discharger.

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15. New Water Quality Objectives

As new or revised water quality objectives come into effect for the Bay and contiguous water bodies (whether statewide, regional or site-specific), effluent limitations in this Order will be modified as necessary to reflect updated water quality objectives. Adoption of effluent limitations contained in this Order are not intended to restrict in any way for future modifications based on legally adopted water quality objectives.

16. Permit Re-opener

The Board may modify, or revoke and reissue this Order and permit prior to its expiration date, if present or future investigations demonstrate that the discharge(s) governed by this Order will or have the potential to cause or contribute to adverse impacts on water quality and/or beneficial uses of the receiving waters. This Order will be re-opened if necessary, before its expiration date, to (1) add effluent and/or receiving water limitations for CTR constituents that are shown to have reasonable potential based on the data collected pursuant to the Monitoring Program of this Order; (2) to incorporate waste load allocations developed during the TMDL process, or (3) to include limits for other pollutants that the Board finds are or may be discharged at a level which will cause, have a reasonable potential to cause, or contribute to an excursion above any water quality standard.

17. NPDES Permit

This Order shall serve as a National Pollutant Discharge Elimination System (NPDES) permit pursuant to Section 402 of the Clean Water Act or amendments thereto, and shall become effective on September 1, 2003, provided the U.S. EPA Regional Administrator has no objection. If the Regional Administrator objects to its issuance, the permit shall not become effective until such objection is withdrawn.

18. Order Expiration and Reapplication

This Order expires on August 31, 2008. Dischargers, who will discharge after August 31, 2008, must file an application for a NPDES permit no later than February 28, 2008, as application for reissuance of new waste discharge requirements.

I, Loretta K. Barsamian, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on June 18, 2003.

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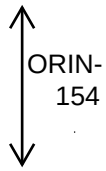
LORETTA K. BARSAMIAN
Executive Officer

Attachments:
A. Self-Monitoring Program
B. Standard Provisions and Reporting Requirements, August 1993
C. Notice of Intent (NOI) and NOI Instruction
D. Notice of Non-Applicability
E. Fact Sheet
F. August 6, 2001 letter



Attachment A – Self-Monitoring Program

Attachment B – Standard Provisions and Reporting Requirements, August 1993
(Not included here due to length, available at
http://www.swrcb.ca.gov/rwqcb2/download.htm)

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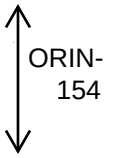
Attachment C – Notice of Intent (NOI) and NOI Instruction



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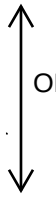
Attachment D – Notice of Non-Applicability



Attachment E – Fact Sheet

Attachment F – August 6, 2001 Letter (Not included here due to length, available at http://www.swrcb.ca.gov/rwqcb2/download.htm)

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Comment Letter ORIN

Water-main breaks proving deadly to fish

- Patrick Hoge, Chronicle Staff Writer
Saturday, July 15, 2006

Aquarium owners typically know that untreated tap water can kill fish.

And Bay Area water-quality regulators are increasingly concerned that drinking water spilling down storm drains and into creeks has caused fish kills in places like Berkeley and Marin County.

Regional Water Quality Control Board officials are particularly concerned about a disinfectant called chloramine that water agencies nationwide have started to use instead of chlorine. Chloramine, which regulators say is not toxic to humans, is more lethal to aquatic life.

Water officials locally and nationwide have been switching to chloramine -- a mix of chlorine and ammonia that water officials say produces fewer potentially dangerous by-products for people than chlorine. But chloramine is worse for fish because it lasts longer in the environment.

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"We need a more effective program put into place that will prevent these fish, frogs and other aquatic life from being killed," said Ann Riley, river and watershed restoration adviser for the San Francisco Regional Water Quality Control Board and co-founder of the Urban Creeks Council.

Riley and co-workers became concerned about chloramine after a series of East Bay Municipal Utility District water-main breaks sent hundreds of thousands of gallons of water into three creeks, killing fish on at least two occasions in Berkeley.

Riley has since concluded that EBMUD's protocols for handling breaks, cleaning fire hydrants and replacing pipes are not adequate to prevent chloramine from getting into creeks. Her agency has been preparing to issue a notice of violation to EBMUD.

EBMUD incidents include a water-main break last year that killed 30 Sacramento sucker fish in Strawberry Creek in Berkeley and at least two involving more than 100,000 gallons of water into Codornices Creek, one in 2000 and the other last year. Steelhead have been spawning again in that creek and taxpayer-funded habitat-restoration efforts are under way.

EBMUD spokesman Charles Hardy said that his agency does a good job containing water spills, given that there are 4,000 miles of EBMUD pipe.

On average, EBMUD crews arrive to breaks within 38 minutes, and they are trained to

Comment Letter ORIN

dechloraminate water before it runs into creeks, he said.

Riley, however, said it's not enough, considering that recently there have been about 100 pipe breaks a month, while the government is spending significant amounts of money to restore wildlife to creeks hit with spills.

The State Water Resources Control Board is updating its policy to set statewide chloramine discharge standards for the first time. The agency had considered requiring extensive field monitoring for chloramine but dropped the idea after numerous water agencies, including EBMUD, said it would be impractical.

After creek advocates complained, however, the state agency's water quality chief, Darrin Polhemus, said his agency would likely set discharge limits that local water quality control boards would enforce.

The Marin Municipal Water District, which started using chloramine in 1995, caused two fish kills in 2004. In all, the spills of drinking water killed 33 trout in Corte Madera Creek and Ross Creek. Those trout could have been protected steelhead.

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The San Francisco Public Utilities Commission in 2004 became the last major water agency in the region to start using chloramine. Agency spokesman Tony Winnicker said virtually all water that goes into city storm drains goes through the city's sewer system, and thus chloramine is removed before discharge into the bay or ocean. Most cities do not treat their storm water.

Some people question whether the chemical is safe for people, and a group has formed to protest San Francisco's shift to chloramine.

Federal regulators, however, say low levels of chloramine have been used to safely disinfect drinking water for nearly a century.

Chloramine facts

Used as a disinfectant for more than a century

In low doses, not toxic to humans

Produced by combining chlorine and ammonia

Compared with just chlorine, is less likely to react with organic material in water and cause potentially carcinogenic by-products

E-mail Patrick Hoge at phoge@sfchronicle.com.

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URL: http://sfgate.com/cgi-bin/article.cgi?file=/c/a/2006/07/15/BAGAVJVLHG1.DTL

BAY AREA AIR POLLUTION SUMMARY — 2004

—See NOTES on back of this page

MONITORING STATIONS	OZONE							CARBON MONOXIDE			NITROGEN DIOXIDE			SULFUR DIOXIDE			PM_{10}				$PM_{2.5}$				
	Max 1-Hr	Nat Days	Cal Days	3-Yr Avg	Max 8-Hr	Nat Days	3-Yr Avg	Max 1-Hr	Max 8-Hr	Nat/Cal Days	Max 1-Hr	Ann Avg	Nat/Cal Days	Max 24-Hr	Ann Avg	Nat/Cal Days	Ann Avg	Max 24-Hr	Nat Days	Cal Days	Max 24-Hr	Nat Days	3-Yr Avg	Ann Avg	3-Yr Avg
North Counties	(pphm)				(pphm)			(ppm)			(pphm)			(ppb)			($\mu g/m^3$)				($\mu g/m^3$)			($\mu g/m^3$)	
Napa	9	0	0	0.0	7	0	6.6	3.7	2.0	0	6	1.1	0	-	-	-	20.7	60	0	1	-	-	-	-	-
San Rafael	9	0	0	0.0	6	0	4.9	3.2	2.0	0	6	1.5	0	-	-	-	17.9	52	0	1	-	-	-	-	-
Santa Rosa	8	0	0	0.0	6	0	5.1	2.7	1.6	0	5	1.1	0	-	-	-	18.0	48	0	0	27	0	32	8.3	9
Vallejo	10	0	1	0.0	7	0	6.5	4.0	3.4	0	5	1.2	0	5	1.3	0	19.6	51	0	1	40	0	39	11.1	11
Coast & Central Bay																									
Oakland	8	0	0	0.0	6	0	4.0	3.5	2.6	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Richmond	-	-	-	-	-	-	-	-	-	-	-	-	-	5	1.6	0	-	-	-	-	-	-	-	-	-
San Francisco	9	0	0	0.0	6	0	4.7	2.9	2.2	0	6	1.7	0	8	1.4	0	22.5	52	0	1	46	0	41	9.9	11
San Pablo	11	0	1	0.0	7	0	5.2	3.2	1.8	0	6	1.3	0	5	1.6	0	21.2	64	0	1	-	-	-	-	-
Eastern District																									
Bethel Island	10	0	1	0.0	8	0	7.5	1.2	0.9	0	3	0.8	0	6	1.6	0	19.5	42	0	0	-	-	-	-	-
Concord	10	0	1	0.0	8	0	7.9	2.7	2.0	0	7	1.2	0	10	1.0	0	18.6	51	0	1	74	1	40*	10.7*	11*
Crockett	-	-	-	-	-	-	-	-	-	-	-	-	-	7	1.7	0	-	-	-	-	-	-	-	-	-
Fairfield	10	0	1	0.0	8	0	7.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Livermore	11	0	5	1.0	8	0	8.3	3.5	1.8	0	6	1.4	0	-	-	-	20.0	49	0	0	41	0	37	10.3	11
Martinez	-	-	-	-	-	-	-	-	-	-	-	-	-	7	1.5	0	-	-	-	-	-	-	-	-	-
Pittsburg	9	0	0	0.0	8	0	7.3	4.1	1.9	0	5	1.1	0	7	2.0	0	21.7	64	0	1	-	-	-	-	-
South Central Bay																									
Fremont	9	0	0	0.0	7	0	6.4	3.0	1.7	0	6	1.5	0	-	-	-	18.6	49	0	0	40	0	32	9.4	10
Hayward	9	0	0	0.0	7	0	6.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Redwood City	10	0	1	0.0	7	0	6.0	4.8	2.1	0	6	1.5	0	-	-	-	20.5	65	0	1	36	0	32	9.3	9
San Leandro	10	0	1	0.0	7	0	5.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Santa Clara Valley																									
Gilroy	9	0	0	0.0	8	0	7.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Los Gatos	9	0	0	0.0	8	0	7.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
San Jose Central*	9	0	0	*	7	0	*	4.4	3.0	0	7	1.9	0	-	-	-	23.1	58	0	4	52	0	*	11.6	*
San Jose East	9	0	0	0.0	7	0	6.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
San Jose, Tully Road	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	26.0	65	0	3	45	0	35	10.4	10
San Martin	9	0	0	0.0	8	0	8.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sunnyvale	10	0	1	0.0	8	0	6.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Bay Area Days over Standard		0	7			0				0			0			0			0	7		1		

*See notes of explanation on back of this page

2004 NOTES

The annual Bay Area Air Pollution Summary summarizes measurements for the national and California pollutant standards.

***Station Information (see asterisks on front page)**

The **San Jose 4th Street** station was closed on April 30, 2002. It was relocated to **San Jose Central** on October 5, 2002. Three-year average ozone statistics and three-year average $PM_{2.5}$ statistics for San Jose Central have been omitted from this summary.

Due to roof damage at the Concord station during the fourth quarter of 2004, the $PM_{2.5}$ sampler could not be operated on some of the required sampling days. The $PM_{2.5}$ annual average and three-year average $PM_{2.5}$ statistics are based on available data.

Explanation of Terms

State and national excesses occur when pollutant concentrations surpass the indicated standards, with values in most cases rounded to the same number of decimal places.

MAX HR / MAX 8-HR / MAX 24-HR
The highest average contaminant concentration over a one-hour period, an eight-hour period (on any given day), or a 24-hour period (from midnight to midnight).

ANN AVG
The yearly average (arithmetic mean) of the readings taken at a given monitoring station.

NAT DAYS
The number of days during the year for which the monitoring station recorded contaminant concentrations in excess of the national standard.

CAL DAYS
The number of days during the year for which the station recorded contaminant levels in excess of the California standard.

TOTAL BAY AREA DAYS OVER STANDARD is not a sum of excesses at individual stations, but rather a sum of the number of days for which excesses occurred at any one or more stations.

3-YR AVG (1-hr ozone standard)
The average number of days per year during which ozone levels were in excess of the national 1-hour standard, based on the most recent three-year period. *An average higher than 1.0 at any monitoring station means the region will be considered out of attainment by the EPA.*

3-YR AVG (8-hr ozone standard)
The 3-year average of the fourth highest 8-hour average ozone concentration for each monitoring station. *A 3-year average greater than 8.4 at any monitoring station means that the region will be considered out of attainment by the EPA.*

PM_{10}
Particulate matter ten microns or smaller in size. (PM_{10} is only sampled every sixth day. *Actual* days over standard can be estimated to be six times the number shown.)

$PM_{2.5}$
Particulate matter 2.5 microns or smaller in size. $PM_{2.5}$ is a sub-category of PM_{10}.

PM_{10} ANN AVG and MAX 24-HR
California PM_{10} Annual Average and Maximum 24-Hour concentrations are reported at local temperature and pressure conditions. National PM_{10} Annual Average and Maximum 24-Hour concentrations are reported at standard temperature and pressure conditions. This table shows the California readings for PM_{10} Ann Avg and Max 24-Hr, which are generally slightly higher than the national readings.

3-YR AVG ($PM_{2.5}$ 24-hour standard)
The 3-year average of the annual 98th percentiles of the individual 24-hour concentrations of $PM_{2.5}$. *A 3-year average greater than 65 $\mu g/m^3$ at any monitoring station means that the region will be considered out of attainment by the EPA.*

3-YR AVG ($PM_{2.5}$ annual standard)
The 3-year average of the quarterly averages of $PM_{2.5}$. *A 3-year average greater than 15 $\mu g/m^3$ at any monitoring station means that the region will be considered out of attainment by the EPA.*

HEALTH-BASED AMBIENT AIR QUALITY STANDARDS

Pollutant	Averaging Time	California Std	National Std
Ozone	1 Hour*	9 pphm	12 pphm*
	8 Hour	—	8 pphm
Carbon Monoxide	1 Hour	20 ppm	35 ppm
	8 Hour	9.0 ppm	9 ppm
Nitrogen Dioxide	1 Hour	25 pphm	—
	Annual	—	5.3 pphm
Sulfur Dioxide	24 Hour	40 ppb	140 ppb
	Annual	—	30 ppb
Particulates < 10 microns	24 Hour	50 $\mu g/m^3$	150 $\mu g/m^3$
	Annual	20 $\mu g/m^3$	50 $\mu g/m^3$
Particulates < 2.5 microns	24 Hour	—	65 $\mu g/m^3$
	Annual	12 $\mu g/m^3$	15 $\mu g/m^3$

*The U.S. EPA revoked the national 1-hour ozone standard on June 15, 2005.

Concentrations | **ppm** parts per million | **pphm** parts per hundred million | **ppb** parts per billion | **$\mu g/m^3$** micrograms per cubic meter

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TEN-YEAR BAY AREA AIR QUALITY SUMMARY

DAYS OVER STANDARDS

YEAR	OZONE			CARBON MONOXIDE				Nitrogen Dioxide	Sulfur Dioxide		PM_{10}		$PM_{2.5}$
	1-Hr		8-Hr	1-Hr		8-Hr		1-Hr	24-Hr		24-Hr*		24-Hr**
	Nat	Cal	Nat	Nat	Cal	Nat	Cal	Cal	Nat	Cal	Nat	Cal	Nat
1995	11	28	-	0	0	0	0	0	0	0	0	7	-
1996	8	34	-	0	0	0	0	0	0	0	0	3	-
1997	0	8	-	0	0	0	0	0	0	0	0	4	-
1998	8	29	16	0	0	0	0	0	0	0	0	5	-
1999	3	20	9	0	0	0	0	0	0	0	0	12	-
2000	3	12	4	0	0	0	0	0	0	0	0	7	1
2001	1	15	7	0	0	0	0	0	0	0	0	10	5
2002	2	16	7	0	0	0	0	0	0	0	0	6	7
2003	1	19	7	0	0	0	0	0	0	0	0	6	0
2004	0	7	0	0	0	0	0	0	0	0	0	7	1

*PM_{10} is sampled every sixth day—*actual* days over standard can be estimated to be six times the numbers listed.

**2000 is the first full year for which the Air District measured $PM_{2.5}$ levels.

BAAQMD CEQA GUIDELINES
Assessing the Air Quality Impacts of Projects and Plans

Prepared by the Planning and Research Division of the
Bay Area Air Quality Management District
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This document is intended to serve as a guide for those who prepare or evaluate air quality impact analyses for projects and plans in the San Francisco Bay Area. The GUIDELINES include information on legal requirements, BAAQMD rules, plans and procedures, methods of analyzing air quality impacts, thresholds of significance, mitigation measures, and background air quality information. Copies and updates are available from the BAAQMD Public Information Office at (415) 749-4900. Questions on content may be addressed to the BAAQMD's Planning and Transportation Section at (415) 749-4995.

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project or plan can be identified in the Initial Study (i.e., none of the significance thresholds are exceeded), the District recommends the Lead Agency either prepare a Negative Declaration or include in an EIR a statement indicating the reasons why potential air quality impacts were determined not to be significant.

Sources of air pollutant emissions complying with all applicable District regulations generally will not be considered to have a significant air quality impact.[2] Stationary sources that are exempt from District permit requirements because they fall below emission thresholds for permitting will not be considered to have a significant air quality impact (unless it is demonstrated that they may have a significant cumulative impact). The Lead Agency can and should make exception to this determination if special circumstances suggest that the emissions from the permitted or exempt source may cause a significant air quality impact. For example, if a permitted or exempt source may emit objectionable odors, then odor impacts on nearby receptors should be considered a potentially significant air quality impact.

2.3 Thresholds of Significance

This section describes the District's recommended thresholds of significance to be used by a Lead Agency when preparing an Initial Study. If, during the preparation of the Initial Study, the Lead Agency finds that any of the following thresholds may be exceeded, then an EIR should be prepared in order to more accurately evaluate project impacts and identify mitigation measures. These thresholds also may be used when preparing an EIR. If the more detailed analysis in an EIR indicates that any of these thresholds would be exceeded, the document should identify the impact as a significant air quality impact and propose mitigation measures. Chapter 3 explains how to calculate emissions to determine whether the thresholds have been exceeded. The following thresholds address impacts associated with: 1) project construction, 2) project operations, and 3) plans.

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Threshold of Significance for Construction Impacts

Construction-related emissions are generally short-term in duration, but may still cause adverse air quality impacts. Fine particulate matter (PM_{10}) is the pollutant of greatest concern with respect to construction activities.[3] PM_{10} emissions can result from a variety of construction activities, including excavation, grading, demolition, vehicle travel on paved and unpaved surfaces, and vehicle and equipment exhaust. Construction-related emissions can cause substantial increases in localized concentrations of PM_{10}. Particulate emissions from construction activities can lead to adverse health effects as well as nuisance concerns such as reduced visibility and soiling of exposed surfaces.

Construction emissions of PM_{10} can vary greatly depending on the level of activity, the specific operations taking place, the equipment being operated, local soils, weather conditions and other factors. Despite this variability in emissions, experience has shown that there are a number of

[2]CEQA Guidelines, Section 15064(i).

[3] Construction equipment emits carbon monoxide and ozone precursors. However, these emissions are included in the emission inventory that is the basis for regional air quality plans, and are not expected to impede attainment or maintenance of ozone and carbon monoxide standards in the Bay Area.

feasible control measures that can be reasonably implemented to significantly reduce PM_{10} emissions from construction. The District's approach to CEQA analyses of construction impacts is to emphasize implementation of effective and comprehensive control measures rather than detailed quantification of emissions.

The District has identified a set of feasible PM_{10} control measures for construction activities. These control measures are listed in Table 2. As noted in the table, some measures ("Basic Measures") should be implemented at all construction sites, regardless of size. Additional measures ("Enhanced Measures") should be implemented at larger construction sites (greater than 4 acres) where PM_{10} emissions generally will be higher. Table 2 also lists other PM_{10} controls ("Optional Measures") that may be implemented if further emission reductions are deemed necessary by the Lead Agency.

The determination of significance with respect to construction emissions should be based on a consideration of the control measures to be implemented. From the District's perspective, quantification of construction emissions is not necessary (although a Lead Agency may elect to do so - see Section 3.3 of these Guidelines, "Calculating Construction Emissions," for guidance). The Lead Agency should review Table 2. If all of the control measures indicated in Table 2 (as appropriate, depending on the size of the project area) will be implemented, then air pollutant emissions from construction activities would be considered a less than significant impact. If all of the appropriate measures in Table 2 will not be implemented, then construction impacts would be considered to be significant (unless the Lead Agency provides a detailed explanation as to why a specific measure is unnecessary or not feasible).

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Project construction sometimes requires the demolition of existing buildings at the project site. Buildings constructed prior to 1980 often include building materials containing asbestos. Airborne asbestos fibers pose a serious health threat. The demolition, renovation or removal of asbestos-containing building materials is subject to the limitations of District Regulation 11, Rule 2: Hazardous Materials; Asbestos Demolition, Renovation and Manufacturing. The District's Enforcement Division should be consulted prior to commencing demolition of a building containing asbestos building materials. Any demolition activity subject to but not complying with the requirements of District Regulation 11, Rule 2 would be considered to have a significant impact.

TABLE 2
FEASIBLE CONTROL MEASURES FOR CONSTRUCTION EMISSIONS OF PM_{10}

Basic Control Measures. - The following controls should be implemented at all construction sites.
• Water all active construction areas at least twice daily. • Cover all trucks hauling soil, sand, and other loose materials *or* require all trucks to maintain at least two feet of freeboard. • Pave, apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas and staging areas at construction sites. • Sweep daily (with water sweepers) all paved access roads, parking areas and staging areas at construction sites. • Sweep streets daily (with water sweepers) if visible soil material is carried onto adjacent public streets.
Enhanced Control Measures. - The following measures should be implemented at construction sites greater than four acres in area.
• All "Basic" control measures listed above. • Hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas (previously graded areas inactive for ten days or more). • Enclose, cover, water twice daily or apply (non-toxic) soil binders to exposed stockpiles (dirt, sand, etc.) • Limit traffic speeds on unpaved roads to 15 mph. • Install sandbags or other erosion control measures to prevent silt runoff to public roadways. • Replant vegetation in disturbed areas as quickly as possible.
Optional Control Measures. - The following control measures are strongly encouraged at construction sites that are large in area, located near sensitive receptors or which for any other reason may warrant additional emissions reductions.
• Install wheel washers for all exiting trucks, or wash off the tires or tracks of all trucks and equipment leaving the site. • Install wind breaks, or plant trees/vegetative wind breaks at windward side(s) of construction areas. • Suspend excavation and grading activity when winds (instantaneous gusts) exceed 25 mph. • Limit the area subject to excavation, grading and other construction activity at any one time.

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Special emphasis should be placed on air quality resources that are rare or unique to the region and would be affected by the project (State CEQA Guidelines Section 15125 (a)). Regulatory requirements identify areas which are pristine and classified as Class I airsheds. These airsheds are subject to specific standards (Prevention of Significant Deterioration requirements). Within the Bay Area, the Point Reyes National Seashore is designated as a Class I area. Projects proposed in the vicinity of that area should note the project's proximity to a Class I area in the description of the project setting.

3.3 Evaluating Construction Emissions

Construction activities result in air pollutant emissions and should be addressed in environmental documents. Although construction-related emissions are generally temporary in duration, they can be substantial and can represent a significant impact on air quality. This is particularly true with respect to emissions of PM_{10}. Construction-related emissions come from a variety of activities including: 1) grading, excavation, roadbuilding and other earthmoving activities, 2) travel by construction equipment, especially on unpaved surfaces, and 3) exhaust from construction equipment. Demolition of buildings also generates PM_{10} emissions, and is of particular concern if the building(s) contain any asbestos-bearing materials.

PM_{10} emissions from construction activity can vary considerably depending on factors such as the level of activity, the specific operations taking place, and weather and soil conditions. As noted in Section 2.3, the District emphasizes implementation of effective and comprehensive control measures rather than detailed quantification of construction emissions. The District urges Lead Agencies to consider the size of the construction area and the nature of the activities that will occur, and require the implementation of all feasible control measures (indicated in Table 2). ORIN-157

If a Lead Agency wants to quantify construction emission, however, generalized emission factors are available. U.S. EPA has developed an approximate emission factor for construction-related emissions of total suspended particulate of 1.2 tons per acre per month of activity. This factor assumes a moderate activity level, moderate silt content in soils being disturbed, and a semi-arid climate. ARB estimates that 64% of construction-related total suspended particulate emissions is PM_{10}.[12] This yields the following **emission factors for uncontrolled construction-related PM_{10} emissions:**

- 0.77 tons per acre per month of PM_{10}, or
- 51 lbs. per acre per day of PM_{10}.[13]

The emission factors provided above are approximate values and do not reflect site-specific conditions and operations. EPA recommends that if construction emissions from a specific site are to be quantified, the construction process should be divided into component operations (e.g., bulldozing, loading of excavated materials, vehicular traffic, etc.) and more specific emission factors should be used. See Section 13.2.3, Heavy Construction Operations, and related sections

[12] California Air Resources Board, Methods for Assessing Area Source Emissions in California, September 1991.

[13] EPA's emission factor was derived based on the assumption that construction activity occurs 30 days per month. See Section 13.2.3, Heavy Construction Operations, U.S. EPA, Compilation of Air Pollutant Emission Factors, Volume I: Stationary, Point and Area Sources, AP-42, 5th Edition, January 1995.

of U.S. EPA, Compilation of Air Pollutant Emission Factors, Volume I: Stationary, Point and Area Sources, AP-42, 5th Edition, January 1995 for further information.

In addition to particulate emissions from earthmoving, air pollutants also are emitted in the exhaust of construction equipment. Table 7 presents emission factors for estimating construction equipment emissions (assuming an average of 0.27 gallons of fuel burned per cubic yard of earth moved). These emission factors represent a composite fleet of heavy and light duty construction equipment in the Bay Area. Emissions from construction equipment during building construction, as differentiated from earthmoving in site preparation, vary greatly from project to project. Table 7 can be used to estimate construction exhaust emissions based on gallons of fuel consumed or cubic yards of material moved. Lead Agencies also may consult the most recent edition of U.S. EPA's AP-42 for emission factors for specific types of construction equipment.

TABLE 7
HEAVY AND LIGHT DUTY CONSTRUCTION EQUIPMENT
EXHAUST EMISSION FACTORS

Contaminant	gm/yd^3*	gm/gallon**
PM_{10}	2.2	8.0
CO	138.0	511.0
ROG	9.2	34.0
NO_x	42.4	157.0
SO_x	4.6	17.0

* Grams per cubic yard of earth moved. ** Grams per gallon of fuel burned.

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Project construction sometimes involves the demolition of existing buildings. Demolition also produces PM_{10} emissions. PM_{10} emissions from demolition activities may be estimated using the following emission factor: 0.00042 lbs PM_{10} per cubic feet of building volume.[14] Buildings constructed prior to 1980 often include building materials containing asbestos. As noted in Section 2.3, Thresholds of Significance, the demolition, renovation or removal of asbestos-containing building materials is subject to District Regulations. The District's Enforcement Division should be consulted prior to commencing demolition of a building containing asbestos building materials.

The emission factors provided above represent uncontrolled emissions. Section 2.3, Thresholds of Significance, and Section 4.2, Mitigating Construction Impacts, provide information on mitigating construction-related emissions. If an environmental document will include quantification of construction emissions, the Lead Agency should be sure to apply the estimated control effectiveness to the appropriate emission source. For example, watering a construction site can reduce PM_{10} emissions from earthmoving activities, but will not reduce equipment exhaust emissions.

[14] South Coast Air Quality Management District, CEQA Air Quality Handbook, April 1993.

ACUTE TOXICITY SUMMARY

HYDROGEN SULFIDE

(sulfur hydride; sulfuretted hydrogen)

CAS Registry Number: 7783-06-4

I. Acute Toxicity Summary (for a 1-hour exposure)

Inhalation reference exposure level	**42 µg/m³**
Critical effect(s)	Headache, nausea, physiological responses to odor
Hazard Index target(s)	CNS

II. Physical and Chemical Properties (AIHA, 1991 except as noted)

Description	colorless gas
Molecular formula	H_2S
Molecular weight	34.08
Density	1.39 g/L @ 25°C
Boiling point	-60.7°C
Melting point	unknown
Vapor pressure	1 atm @ -60.4°C
Flash point	26°C
Explosive limits	upper = 4.3% by volume in air lower = 46% by volume in air
Solubility	soluble in water, hydrocarbon solvents, ether, and ethanol
Odor threshold	0.0081 ppm (Amoore and Hautala, 1983)
Odor description	resembles rotten eggs
Metabolites	bisulfite (HSO_3), thiosulfate ($S_2O_3^{2-}$) (Baxter and Van Reen, 1958)
Conversion factor	1 ppm = 1.4 mg/m³ @ 25°C

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II. Major Uses or Sources

Hydrogen sulfide (H_2S) is used as a reagent and an intermediate in the preparation of other reduced sulfur compounds. It is also a by-product of desulfurization processes in the oil and gas industries and rayon production, sewage treatment, and leather tanning (Ammann, 1986).

IV. Acute Toxicity to Humans

Hydrogen sulfide is an extremely hazardous gas (ACGIH, 1992). Hydrogen sulfide exposure is reported to be the most common cause of sudden death in the workplace (NIOSH, 1977). The mortality in acute hydrogen sulfide intoxications has been reported to be 2.8% (Arnold *et al.*, 1985) to 6% (WHO, 1981). While severe intoxication is especially of concern when exposure occurs in confined spaces, an accidental release of hydrogen sulfide into the air surrounding industrial facilities can cause very serious effects. For example, at Poza Rica, Mexico 320 people were hospitalized and 22 died (WHO, 1981). An inhalation LC_{Lo} of 600 and 800 ppm (840 and 1,120 mg/m^3) for 30 and 5 minutes, respectively, is reported (Hazardtext, 1994). A lethal exposure was documented for a worker exposed to approximately 600 ppm H_2S for 5-15 minutes (Simson and Simpson, 1971). Inhalation of 1,000 ppm (1,400 mg/m^3) is reported to cause immediate respiratory arrest (ACGIH, 1992). Concentrations greater than 200 ppm (280 mg/m^3) H_2S are reported to cause direct irritant effects on exposed surfaces and can cause pulmonary edema following longer exposures (Spiers and Finnegan, 1986). The mechanism of H_2S toxicity, cellular hypoxia caused by inhibition of cytochrome oxidase, is similar to that for cyanide and can be treated by induction of methemoglobin or with hyperbaric oxygen (Elovaara *et al.*, 1978; Hsu *et al.*, 1987).

At concentrations exceeding 50 ppm (70 mg/m^3), olfactory fatigue prevents detection of H_2S odor. Exposure to 100-150 ppm (140-210 mg/m^3) for several hours causes local irritation (Haggard, 1925). Exposure to 50 ppm for 1 hour causes conjunctivitis with ocular pain, lacrimation, and photophobia; this can progress to keratoconjunctivitis and vesiculation of the corneal epithelium (ACGIH, 1992). Bhambhani and Singh (1991) showed that 16 healthy subjects exposed to 5 ppm (7 mg/m^3) H_2S under conditions of moderate exercise exhibited impaired lactate and oxygen uptake in the blood. Bhambhani and Singh (1985) reported that exposure of 42 individuals to 2.5 to 5 ppm (3.5 to 7 mg/m^3) H_2S caused coughing and throat irritation after 15 minutes.

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In another study, ten asthmatic volunteers were exposed to 2 ppm H_2S for 30 minutes and pulmonary function was tested (Jappinen *et al.*, 1990). All subjects reported detecting "very unpleasant" odor but "rapidly became accustomed to it." Three subjects reported headache following exposure. No significant changes in mean FVC or FEV_1 were reported. Although individual values for specific airway resistance (SR_{aw}) were not reported, the difference following exposure ranged from -5.95% to +137.78%. The decrease in specific airway conductance, SG_{aw}, ranged from -57.7% to +28.9%. The increase in mean SR_{aw} and the decrease in mean SG_{aw} were not statistically significant. However, significantly increased airway resistance and decreased airway conductance were noted in two of ten asthmatic subjects which may be biologically significant.

Hydrogen sulfide is noted for its strong and offensive odor. Based on a review of 26 studies, the average odor detection threshold ranged from 0.00007 to 1.4 ppm (Amoore, 1985). The geometric mean of these studies is 0.008 ppm. In general, olfactory sensitivities decrease by a factor of 2 for each 22 years of age above 20 (Venstrom and Amoore, 1968); the above geometric mean is based on the average age of 40.

For hydrogen sulfide, concentrations that substantially exceed the odor threshold result in the annoying and discomforting physiological symptoms of headache or nausea (Amoore, 1985; Reynolds and Kauper 1985). The perceived intensity of the odor of hydrogen sulfide depends on the longevity of the concentration, and the intensity increases 20% for each doubling concentration (Amoore, 1985). Several studies have been conducted to establish the ratio of discomforting annoyance threshold to detection threshold for unpleasant odors (Winneke, 1975; Winneke and Kastka, 1977; Hellman and Small, 1974; Adams *et al.,* 1968; and NCASI, 1971). The geometric mean for these studies is 5, indicating that when an unpleasant odor reaches an average concentration of 5 times its detection threshold, the odor will result in annoying discomfort. Applying the 5-fold multiplier to the mean detectable level, 0.008 ppm, results in a mean annoyance threshold of 0.04 ppm. At the current California Ambient Air Quality Standard (CAAQS) of 0.03 ppm, the level would be detectable by 83% of the population and would be discomforting to 40% of the population. These estimates have been substantiated by odor complaints and reports of nausea and headache (Reynolds and Kauper 1985) at 0.03 ppm H2S exposures from geyser emissions. The World Health Organization (WHO) reports that in order to avoid substantial complaints about odor annoyance among the exposed population, hydrogen sulfide concentrations should not be allowed to exceed 0.005 ppm (7 $\mu g/m^3$), with a 30-minute averaging time (WHO, 1981; National Research Council, 1979; Lindvall, 1970).

Predisposing Conditions for Hydrogen Sulfide Toxicity

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Medical: Unknown

Chemical: Ethanol has been shown to potentiate the effects of H_2S by shortening the mean time-to-unconsciousness in mice exposed to 800 ppm (1,120 mg/m^3) H_2S (Beck *et al.*, 1979).

V. Acute Toxicity to Laboratory Animals

A median lethal concentration (LC_{50}) in rats exposed to H_2S for 4 hours was estimated as 440 ppm (616 mg/m^3) (Tansy *et al.*, 1981). An inhalation LC_{Lo} of 444 ppm for an unspecified duration is reported in rats, and a lethal concentration of 673 ppm (942 mg/m^3) for 1 hour is reported in mice (RTECS, 1994). In another study, mortality was significantly higher for male rats (30%), compared to females (20%), over a range of exposure times and concentrations (Prior *et al.*, 1988). A concentration of 1,000 ppm (1,400 mg/m^3) caused respiratory arrest and death in dogs after 15-20 minutes (Haggard and Henderson, 1922). Inhalation of 100 ppm (140 mg/m^3) for 2 hours resulted in altered leucine incorporation into brain proteins in mice (Elovaara *et al.*, 1978). Kosmider *et al.* (1967) reported abnormal electrocardiograms in rabbits exposed to 100 mg/m^3 (71 ppm) H_2S for 1.5 hours.

Khan *et al.* (1990) exposed groups of 12 male Fischer 344 rats to 0, 10, 50, 200, 400, or 500-700 ppm hydrogen sulfide for 4 hours. Four rats from each group were sacrificed at 1, 24, or 48 hours post-exposure. Cytochrome c oxidase activity in lung mitochondria was significantly

($p<0.05$) decreased at 50 ppm (15%), 200 ppm (43%), and 400 ppm (68%) at 1-hour post-exposure compared to controls. A NOAEL of 10 ppm was identified in this study for effects on lung mitochondrial cytochrome c oxidase activity.

VI. Reproductive or Developmental Toxicity

Xu *et al.* (1998) conducted a retrospective epidemiological study in a large petrochemical complex in Beijing, China in order to assess the possible association between petrochemical exposure and spontaneous abortion. The facility consisted of 17 major production plants which are divided into separate workshops, allowing for the assessment of exposure to specific chemicals. Married women (n = 2853), who were 20-44 years of age, had never smoked, and who reported at least one pregnancy during employment at the plant, participated in the study. According to their employment record, about 57% of these workers reported occupational exposure to petrochemicals during the first trimester of their pregnancy. There was a significantly increased risk of spontaneous abortion for women working in all of the production plants with frequent exposure to petrochemicals compared with those working in nonchemical plants. Also, when a comparison was made between exposed and non-exposed groups within each plant, exposure to petrochemicals was consistently associated with an increased risk of spontaneous abortion (overall odds ratio (OR) = 2.7 (95% confidence interval (95% CI) = 1.8 to 3.9) after adjusting for potential confounders). When the analysis was performed with the exposure information obtained from the women' interview responses for (self reported) exposures, the estimated OR for spontaneous abortions was 2.9 (95% CI = 2.0 to 4.0). The analysis was repeated by excluding those 452 women who provided inconsistent reports between recalled exposure and work history, and a comparable risk of spontaneous abortion (OR 2.9; 95% CI 2.0 to 4.4) was found. In analyses for exposure to specific chemicals, an increased risk of spontaneous abortion was found with exposure to most chemicals. There were 106 women (3.7% of the study population) exposed only to hydrogen sulfide, and the results for hydrogen sulphide (OR 2.3; 95% CI = 1.2 to 4.4) were significant. No hydrogen sulfide exposure concentration was reported.

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VII. Derivation of Acute Reference Exposure Level and Other Severity Levels (for a 1-hour exposure)

Reference Exposure Level (protective against mild adverse effects): 42 μg/m³
(California Ambient Air Quality Standard)

Study	California State Department of Public Health, 1969; CARB, 1984; Reynolds and Kamper, 1985; Amoore, 1985
Study population	panel of 16 people; general population
Exposure method	inhalation of increasing concentrations of H_2S
Critical effects	headache, nausea
LOAEL	0.012-0.069 ppm (range of odor threshold)
NOAEL	≤ 0.01 ppm

Exposure duration	not stated (tested until odor detected)
Extrapolated 1 hour concentration	0.012-0.069 ppm (geometric mean = 0.03 ppm) (1 hour = minimum duration for an air standard)
LOAEL uncertainty factor	not used
Interspecies uncertainty factor	1
Intraspecies uncertainty factor	1
Cumulative uncertainty factor	1
Reference Exposure Level	0.03 ppm (0.042 mg/m^3; 42 µg/m^3)

The 1-hour California Ambient Air Quality Standard (AAQS) for hydrogen sulfide was originally based on an olfactory perception study by the California State Department of Public Health (1969). Sixteen individuals were each exposed to increasing concentrations of H_2S until his or her odor threshold was reached. The range of the odor thresholds was 0.012-0.069 ppm, and the geometric mean was 0.029 ppm (geometric standard deviation = 0.005 ppm). The mean odor threshold (rounded to 0.03 ppm) was selected as the AAQS for H_2S. However, others have reported that the odor threshold is as low as 0.0081 ppm (Amoore and Hautala, 1983). In 1984 CARB reviewed the AAQS for H_2S and found that the standard was necessary not only to reduce odors, but also to reduce the physiological symptoms of headache and nausea. (CARB, 1984). Furthermore, Amoore (1985) conducted a study that estimated 40% of the population would find 0.03 ppm (0.042 mg/m^3) to be an objectionable concentration. In public testimony before the ARB it was stated that some people reported headaches and other symptoms at the standard (Reynolds and Kamper, 1985). Thus this recommended level protective against mild adverse effects may be need to be reexamined as more data become available. ORIN-158

Level Protective Against Severe Adverse Effects

No recommendation can be made due to the limitations of the database.

An ERPG-2 of 30 ppm (AIHA, 1991) was based on experimental data showing that exposure of rats to 45 ppm (63 mg/m^3) H_2S for 4 hours resulted in no deaths (Rogers and Ferin, 1981). In addition, rabbits exposed to 71 ppm (100 mg/m^3) H_2S for 1.5 hours developed cardiac irregularities, measured by electrocardiogram, and decreased myocardial ATP phosphorylase (Kosmider *et al.*, 1967). The rationale for the margin of safety used for the ERPG-2 is not presented.

Level Protective Against Life-threatening Effects

No recommendation can be made due to the limitations of the database.

The AIHA ERPG-3 for hydrogen sulfide of 100 ppm (AIHA, 1991) was based on case reports of conjunctivitis, respiratory irritation, and unconsciousness in humans exposed to estimated concentrations of 200-300 ppm (280-420 mg/m^3) H_2S for 20 minutes to 1 hour (Ahlborg, 1951; Yant, 1930). In addition, a 1-hour LC_{50} of 712 ppm (997 mg/ m^3) in rats is cited (CIIT, 1983). The case reports cited in the ERPG document are inadequate to establish acute exposure levels in humans because the concentrations and durations of exposure are only estimates. In addition,

there are no LC_{50} data in the CIIT (1983) report. Rats (5 female and 5 male) exposed to H_2S concentrations ranging from 400-600 ppm (560-840 mg/m^3) for 4 hours showed dose-dependent lethality rates ranging from 30% - 100% (Tansy *et al.*, 1981). On the other hand, two of three rhesus monkeys exposed to a concentration of 500 ppm (700 mg/m^3) for only 35 minutes or less died, which suggests that primates are more sensitive to the lethal effect of H_2S than rats (Lund and Wieland, 1966). The rationale for the margin of safety used for the ERPG-3 was not presented.

NIOSH (1995) reports a (revised) IDLH for hydrogen sulfide of 100 ppm based on acute inhalation toxicity data in humans and animals, but the values from animals appear to be more heavily weighted than the human data in the selection of the IDLH.

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REGULATION 7
ODOROUS SUBSTANCES

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ORIN-159

REGULATION 7
ODOROUS SUBSTANCES

7-100 GENERAL

7-101 **Description:** This Regulation places general limitations on odorous substances and specific emission limitations on certain odorous compounds. A person must meet all limitations of this Regulation, but meeting such limitations shall not exempt such person from any other requirements of the District, state or federal law. See also Rule 1, Sulfur Dioxide and Rule 2, Hydrogen Sulfide, of Regulation 9, Inorganic Gaseous Pollutants.

7-102 **Citizen Complaints:** The limitations of this Regulation shall not be applicable until the APCO receives odor complaints from ten or more complainants within a 90-day period, alleging that a person has caused odors perceived at or beyond the property line of such person and deemed to be objectionable by the complainants in the normal course of their work, travel or residence. When the limits of this regulation become effective as a result of citizen complaints described above, the limits shall remain effective until such time as no citizen complaints have been received by the APCO for 1 year. The limits of this Regulation shall become applicable again when the APCO receives odor complaints from five or more complainants within a 90-day period. (Amended May 21, 1980)

7-110 **Exemptions:** The following buildings, materials and operations are exempted from this regulation:

110.1 Single family dwellings.

110.2 Restaurants and other establishments for the purpose of preparing food for human consumption employing less than 5 persons.

110.3 Materials odorized for safety purposes.

110.4 Materials possessing strong odors for reasons of public health and welfare, and where no suitable substitute is available and where best modern practices are employed.

110.5 Agricultural operations as described in the California Health and Safety Code, Section 41705.

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7-200 DEFINITIONS

7-201 **Odor Free Air:** Air which as been passed through a drying agent followed by two successive beds of activated carbon.

7-202 **Kraft Pulp Mill:** Any combination of industrial operations which converts wood to pulp, and which uses in the pulping process an alkaline sulfide cooking liquor containing sodium hydroxide and sodium sulfide.

TABLE I
DILUTION RATES

Elevation of Emission Point above Grade in Meters (Feet)	Dilution Rate (Volumes of odor-free air per volume of source sample)
Less than 9 (30)	1,000
9 to 18 (30 to 60)	3,000
18 to 30 (60 to 100)	9,000
30 to 55 (100 to 180)	30,000
greater than 55 (180)	50,000

7-300 STANDARDS

7-301 **General Limit on Odorous Substances:** A person shall not discharge any odorous substance which remains odorous after dilution with odor-free air as specified in Table I. Samples shall be collected and analyzed as prescribed in Section 7-400.

7-302 **Limit on Odorous Substances at or Beyond Property Line:** A person shall not discharge any odorous substance which causes the ambient air at or beyond the property line of such person to be odorous and to remain odorous after dilution with four parts of odor-free air.

7-303 **Limit on Odorous Compounds:** A person shall not discharge concentrations of odorous compounds in excess of those specified in Table II, except that this Section shall not apply to kraft mills.

TABLE II
MAXIMUM ALLOWABLE EMISSION CONCENTRATIONS IN PPM

Compound or Family of Compounds	Type A Emission Point	Type B Emission Point
Dimethylsulfide $(CH_3)_2S$	0.1	0.05
Ammonia NH_3	5000	2500
Mercaptans calculated as Methylmercaptan CH_3SH	0.2	0.1
Phenolic compounds calculated as phenol C_6H_5OH	5.0	2.5
Trimethylamine $(CH_3)_3N$	0.02	0.02

7-400 ADMINISTRATIVE REQUIREMENTS

7-401 **Collection of Samples:** Samples shall be taken and transported in a manner which minimizes alteration of the samples either by contamination or loss of odorous material.

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7-402 **Analysis of Samples:** All samples shall be evaluated as soon after collection as possible in accordance with the procedures set forth in Sections 7-403, 7-404 and 7-405.

7-403 **Evaluation Apparatus:** The evaluation apparatus consists of a dynamic olfactometer (variable dilution device) which accepts a field sample, dilutes it with odor-free air and conducts it to an inhalation mask at a flow rate of approximately 14 liters/minute (0.5 cfm).

7-404 **Evaluation Procedure:** Three subjects, selected by the APCO, are seated out-of-sight of the evaluation apparatus and fitted with the inhalation mask. The subjects shall be selected in accordance with procedures approved by the APCO and which are designed to eliminate prospective subjects who have olfactory sensitivity deemed by the APCO to be unduly sensitive or unsensitive at the time of the test. A signal lamp and a signal switch are in front of each subject. The subjects are given 20 presentations, each of 5 seconds duration and 10 seconds apart, for appraisal. Half the presentations (10) are diluted field sample, and half (10) consists only of odor-free air. The presentations of sample and odor-free air are given in random order. At the time each presentation is made, each subject's response is solicited by lighting the subject's signal lamp. If the subject can detect any odor, he responds by pressing his signal switch. The operator records each subject's affirmative or negative response. If the presentation of a sample elicits an affirmative response in less than 5 seconds, odor-free air is substituted for the remainder of the 5 second presentation period. During the 10 second relaxation period between presentations, odor-free air is supplied to the mask.

7-405 **Evaluation Analysis:** For the purpose of this Regulation, a diluted sample shall be deemed odorous if during evaluation as prescribed in Section 7-404 at least two of the subjects gave negative responses to at least 8 of the 10 odor-free or "blank"

presentations and affirmative responses to at least 8 of the 10 sample presentations. Samples deemed to be odorous in accordance with the evaluation analysis described in this Section shall be deemed to be a violation of the limits established in Sections 7-301 and 7-302.

7-600 MANUAL OF PROCEDURES

7-601 Collection of Samples: Samples of odorous compounds specified in Section 7-303, Table II, shall be collected as prescribed in the Manual of Procedures, Volume IV, ST-1, ST-8, ST-11, ST-16, ST-22. (Amended March 17, 1982)

7-602 Sampling Equipment and Techniques for Collection: Sampling equipment and techniques for collection purposes in Section 7-401 are prescribed in the Manual of Procedures, Volume IV. (Amended March 17, 1982)

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REGULATION 9
INORGANIC GASEOUS POLLUTANTS
RULE 2
HYDROGEN SULFIDE

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ORIN-160

REGULATION 9
INORGANIC GASEOUS POLLUTANTS
RULE 2
HYDROGEN SULFIDE

9-2-100 GENERAL

9-2-101 Description: This rule limits ground level concentrations of hydrogen sulfide (H_2S). Persons subject to this Rule may also be subject to the requirements of Regulation 7: Odorous Substances, and Regulation 12: Kraft Pulp Mills.

9-2-110 Exemptions: The limitations of this Rule shall not apply to concentrations of hydrogen sulfide occurring on the property where the emissions occur providing that such property, from the emission point to the point of any such concentrations, is controlled by the person responsible for the emission.

9-2-300 STANDARDS

9-2-301 Limitations on Hydrogen Sulfide: A person shall not emit during any 24 hour period, hydrogen sulfide in such quantities as to result in ground level concentrations in excess of 0.06 ppm averaged over three consecutive minutes or 0.03 ppm averaged over any 60 consecutive minutes.

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9-2-500 MONITORING AND RECORDS

9-2-501 Area Monitoring Requirements: The APCO may require any person emitting hydrogen sulfide from any source to comply with the monitoring, maintenance, records and reporting requirements of Regulation 1, including Sections 1-510, 1-530, 1-540, 1-542, 1-543, and 1-544. The APCO shall notify the affected person in writing that this requirement is being imposed. (Amended October 6, 1999)

9-2-600 MANUAL OF PROCEDURES

9-2-601 Ground Level Monitoring: The monitoring requirements for ground level concentrations of hydrogen sulfide, including siting procedures and instrument specifications, calibration and maintenance procedures, are described in the Manual of Procedures, Volume VI, Section 1. (Amended March 17, 1982)

2.9 City of Orinda

ORIN-1 The issues regarding the impact of the project on the City's residents and neighborhoods identified by the City of Orinda and other concerned individuals are addressed throughout this Response to Comments document. Regarding the letter prepared by Darwin Myers Associates referenced in footnote 1 of this comment, see **Response ORIN-39**.

ORIN-2 This comment summarizes more detailed comments presented later in the letter; refer to **Responses ORIN-6** through **ORIN-18** regarding project need and **ORIN-114** through **ORIN-118** regarding alternatives. Please also refer to Section 2.1.2, Master Response on Benefits to Orinda, for further response to the issues raised in this comment.

ORIN-3 The DEIR discusses a range of alternatives in Chapter 6. In addition, as discussed in the DEIR (p. S-18, p. 6-69) the Orinda-Lafayette Aqueduct project would only be associated with Alternative 2 and thus that project's impacts over a one- to two-year period would be avoided under Alternative 1. Consequently, Alternative 1 is considered environmentally superior to Alternative 2 with respect to impacts in the City of Orinda. With respect to alternatives, refer to **Responses ORIN-114** through **ORIN-120**. Please also refer to Section 2.1.2, Master Response on Benefits to Orinda, for further response to the issues raised in this comment.

ORIN-4 As noted throughout the DEIR, Alternative 1 is the preferred alternative and is environmentally superior to Alternative 2 for some of the reasons listed at the end of this comment (and in the DEIR, p. 6-69). The DEIR also considers a range of alternatives, factoring in redundancy concerns and other factors.

ORIN-5 This comment summarizes more detailed comments presented later in the letter (refer to **Responses ORIN-24** through **ORIN-70**). As indicated in subsequent responses, the DEIR discusses the project's impacts and meets the standards of CEQA.

ORIN-6 This comment states CEQA requirements for EIR project descriptions, and asserts that the WTTIP DEIR project description is deficient. The comment bases this assertion on (a) a purported lack of detail for project-level and program-level elements, and (b) the claim that the DEIR "does not clearly and consistently correlate the Project's numerous objectives and purposes with its several elements . . . [and] does not permit the decision-maker to undertake an informed balancing of benefits and environmental costs."

Regarding the level of detail of project-level and program-level elements, refer to **Responses ORIN-7**, **ORIN-19** through **ORIN-23**, and Section 2.1.1 of this Response to Comments document.

The relationship between the WTTIP's purposes and objectives is as follows:

- *Needs*: On p. 2-14, the DEIR explains that EBMUD needs to make improvements to its water system. WTTIP improvements are driven by a variety of overlapping needs, including meeting existing and future water demands, meeting anticipated future regulatory standards related to water quality, complying with environmental permit conditions, and replacing and upgrading aging infrastructure. These needs are described on DEIR pp. 2-14 though 2-22 and in Table 2-3. (Regarding clarifications to DEIR Table 2-3, refer to **Response ORIN-11**.) The needs specifically addressed by proposed improvements at each WTP are discussed in Sections 2.4 and 2.5; the needs specifically addressed by each water transmission and distribution system improvement (common to both WTTIP alternatives) are discussed in Section 2.6.

- *Purpose*: As stated on DEIR p. 2-2 and elsewhere in the document, the purpose of the WTTIP projects is to meet the needs summarized above (meeting the need to replace and upgrade aging infrastructure, etc.)

- *Objectives*: The project objectives, presented in Table 2-5 (DEIR p.2-22), exemplify the purpose of and need for the WTTIP and reflect EBMUD's mission and obligations as the water supplier for about 1.4 million people. Major considerations reflected in the objectives (the left-hand column of Table 2-5) include reliability, regulatory and water quality issues, operations, implementation, environmental issues, and economics. The objectives were used to develop system wide alternatives; identified alternatives were evaluated by their performance relative to project objectives. Refer to DEIR pp. 6-44 through 6-51 for more information.

Regarding a comparison of project benefits and environmental costs, the DEIR includes a section on "Who Benefits" (pp. 2-22 and 2-23) specifically to aid readers in understanding the benefits of the WTTIP to EBMUD customers. In response to comments, this document includes an expanded discussion of benefits specific to Orinda (see Section 2.1.2). The environmental costs (impacts) are described in detail throughout Chapter 3 of the DEIR and summarized by project and by city in Tables S-4 through S-9.

ORIN-7 The comment states that the actions analyzed at a project level of detail in the DEIR are confusing and incomplete.

Proposed project-level improvements under Alternative 1 and Alternative 2 are necessarily analyzed in different sections of the DEIR in order to facilitate understanding of the various components and impacts of each proposed element. EBMUD regrets any confusion that the organization of the DEIR might have caused and made efforts to avoid this by including tables and summaries.

With regard to the description of the Orinda WTP, the text on DEIR p. 2-59 has been revised to clarify the capacity at which the plant would operate under each alternative. This information is also included in the tables in Chapter 2.

In response to **Comment ORIN-7**, DEIR p. 2-59, paragraph 1 has been revised (refer to Section 3.2, Text Revisions, in this Response to Comments document).

Regarding the text in Footnote 2, the text also generally characterizes the alternatives. Note that during the winter months, all of the Lamorinda area is currently served by the Orinda WTP.

ORIN-8 The DEIR is necessarily complex because the WTTIP projects are complex and numerous. The organization of the DEIR project description and the need for cross-referencing reflect a balancing of CEQA directives to be concise and avoid redundancies while meeting the requirements specified in CEQA Guidelines Section 15124 (contents of a project description). Regarding the discussion of the capacity of the Orinda WTP, see the response above.

The comment cites three types of information on Alternative 1: text, graphics, and tables. In preparing the DEIR, EBMUD believed that it was necessary and useful to employ these formats to describe a project. Regarding the assertion that the DEIR's organization requires "extensive cross-referencing," and thereby "limits the usefulness of the DEIR as an informational document," of the five pieces of information cited in the comment, three are in Section 2.4.3 (Orinda Water Treatment Plant) and two are not: Map D-OWTP-1 and Table B-OWTP-1. Map D-OWTP-1 is one of 66 maps included at the end of the project description. All maps are grouped by map type and each set of maps is tabbed to enable the reader to quickly locate them. Similarly, the table of construction details cited in the comment (Table B-OWTP-1) is one of 27 such tables; consolidating this information in one location improves the readability of the project description. It should be noted that many entities and individuals who were interested in the DEIR have reviewed the DEIR on CD or on the EBMUD website; these electronic versions were set up with bookmarks to enable the user to quickly locate referenced sections, maps, tables and appendices. Moreover, the DEIR summary includes detailed tables with page citations to enable reader to proceed directly to a description of a specific project or a description of a specific impact attributable to a specific project.

ORIN-9 The comment states that the DEIR lists a number of goals, needs, and purposes, but does not correlate those needs and purposes to particular Project components. Please see **Response ORIN-6** for clarification of the relationship between the WTTIP project needs, purposes and objectives.

Regarding WTTIP project needs in particular, Section 2.2.2 of the DEIR provides detailed explanations of the project needs, which include: meeting Water Demands; Water Quality Regulations (Stage 2 Disinfectants/ Disinfection Byproducts Rule; Long-Term Enhanced Surface Water Treatment Rule; California Cryptosporidium Action Plan; Water Quality Problems caused by Aging); NPDES permit requirements; and Infrastructure Replacement and Technology Upgrades. At the end of each explanation of a particular need is a list of the WTTIP projects that satisfy the

need. For example, the DEIR text on p. 2-14 that discusses Water Demands states that facilities serving the Lamorinda/Walnut Creek area are currently insufficient to reliably meet summer water demands. The text goes on to say that under Alternative 1, the capacity of the Lafayette WTP would be expanded to meet this need, and under Alternative 2, the Orinda WTP would meet this need. In addition to the overall discussion of needs in section 2.2.2, the specific need for each facility is included along with the description of the facility in Sections 2.4, 2.5 and 2.6 of the DEIR.

ORIN-10 The comment states that the DEIR does not adequately describe those aspects of the WTTIP that are necessary to comply with state and federal regulations.

The DEIR makes clear that WTTIP improvements are driven by a variety of overlapping needs, including state and federal regulations; however, as emphasized on DEIR pp. 2-18 and 2-19, it is the practice of EBMUD to establish internal water quality goals that meet or exceed state or federal requirements. EBMUD sets these independent goals to ensure that it can meet regulations with an acceptable margin of safety, to plan for future regulatory changes, to accommodate changes in source water quality, and to provide reliable, high quality service.

Please see **Responses BM-7** and **BM-8** for a discussion of compliance with current and anticipated regulations and federal treatment and distribution rules, and the ways in which the actions were developed to satisfy these requirements and other needs.

ORIN-11A The comment states that Table 2-3 (DEIR p. 2-17), summarizing the need addressed for each specific water treatment improvement, contradicts the text of the DEIR. Due to an editorial error, the column headings in summary Table 2-3 were not in the correct order. Table 2-3 on DEIR p. 2-17 has been corrected and follows this page. Also included is a version of the table that sets forth DEIR page references where each "need" is discussed. The text on DEIR pp. 2-18 through 2-21 explains the need for each improvement, including the backwash systems. The text on DEIR p. 2-21 explains that the proposed backwash system at the Orinda WTP is needed to comply with the state NPDES permit in order to eliminate discharges to San Pablo Creek.

The comment also questions why the Orinda WTP backwash water system is not required under the California Cryptosporidium Action Plan (CAP) while the systems at the Walnut Creek and Lafayette WTPs are being implemented to satisfy this requirement.

The current backwash water system at Orinda, in contrast to the Walnut Creek or Lafayette WTPs, does not need to comply with the CAP as it discharges to San Pablo Creek rather than to the influent of a downstream WTP. However, as stated on p. 2-20, the proposed backwash water recycle system will return the treated water to the influent of the Orinda WTP and therefore will also need to comply with the CAP similar to the Lafayette and Walnut Creek WTPs. In other words, the elimination of the backwash discharge system is being undertaken to address NPDES permitting concerns but the new system is being designed to comply with the CAP.

TABLE 2-3
SUMMARY OF NEED ADDRESSED BY SPECIFIC WATER TREATMENT IMPROVEMENT PROJECTS

Facility & Project	Alternatives	Demand	Disinfection Byproduct Rules (Federal)	Surface Water Treatment Rules (Federal)	California Cryptosporidium Action Plan (State)	NPDES Permit (State)	Infrastructure and Technology
Lafayette WTP							
Increase Capacity from 25 mgd to 34 mgd	1	x					x
Clearwells	1	x					x
Chlorine Contact Basin	1		x				x
Blower Building	1						x
Backwash Water Recycle System	1	x			x		x
Sodium Hypochlorite Storage and Feed Building (Lafayette Aqueduct and WTP)	1,2		x				
Raw Water Bypass Pipe	1						x
Leland and Bryant Pumping Plants and Pipelines	1	x					x
Electrical Substation	1	x					x
Lafayette Reclaimed Water Pipeline	1				x		x
High-Rate Sedimentation Units [a]	1			x			
Ultraviolet Light Disinfection [a]	1			x			
Orinda WTP							
Backwash Water Recycle System	1,2				x	X	
Clearwell	2	x					
Los Altos Pumping Plant No. 2	2	x					
Orinda-Lafayette Aqueduct	2	x					
Electrical Substation	2	x					
Additional Clearwell [a]	1,2			x[b]			
High-Rate Sedimentation Units [a]	1,2			x			
Chlorine Contact Basin [a]	1,2		x				
Ultraviolet Light Disinfection [a]	1,2			x			
Walnut Creek WTP							
Increase Capacity from 96 mgd to 115 mgd (add filters)	1,2	x					
Leland Pumping Plant	1,2	x					x
High-Rate Sedimentation Units [a]	1,2			x			
Ultraviolet Light Disinfection [a]	1,2			x			
Sobrante WTP							
Ozone Upgrades	1,2						x
Filter-to-Waste Equalization Basin	1,2						x
Backwash Water Equalization Basin	1,2						x
High-Rate Sedimentation Units	1,2						x
Chlorine Contact Basin	1,2		x				
Upper San Leandro WTP							
Ozone Upgrades	1,2						x
Filter-to-Waste Equalization Basin	1,2						x
Distribution System Improvements	1,2	x		x[b]			x

[a] Program-level projects.
[b] As it relates to water aging and mixing

TABLE 2-3
DEIR PAGE REFERENCES TO NEED ADDRESSED BY SPECIFIC WATER TREATMENT IMPROVEMENT PROJECTS

Facility & Project	Alternatives	Demand	Disinfection Byproduct Rules (Federal)	Surface Water Treatment Rules (Federal)	California Cryptosporidium Action Plan (State)	NPDES Permit (State)	Infrastructure and Technology	Second Reference
Lafayette WTP	DEIR Page Reference							
Increase Capacity from 25 mgd to 34 mgd	1	14					22	29
Clearwells	1	14					22	34
Chlorine Contact Basin	1		20				22	34
Blower Building	1						22	34
Backwash Water Recycle System	1	14			20		22	30
Sodium Hypochlorite Storage and Feed Building (Lafayette Aqueduct and WTP)	1,2		20					34
Raw Water Bypass Pipe	1						22	30
Leland and Bryant Pumping Plants and Pipelines	1	14					22	34
Electrical Substation	1	14					22	35
Lafayette Reclaimed Water Pipeline	1				20		22	40
High-Rate Sedimentation Units [a]	1			20				
Ultraviolet Light Disinfection [a]	1			20				40
Orinda WTP								
Backwash Water Recycle System	1,2				20	21		42
Clearwell	2	14						44
Los Altos Pumping Plant No. 2	2	14						59
Orinda-Lafayette Aqueduct	2	14						59
Electrical Substation	2	14						59
Additional Clearwell [a]	1,2		44	44				
High-Rate Sedimentation Units [a]	1,2			20				47
Chlorine Contact Basin [a]	1,2		20					47
Ultraviolet Light Disinfection [a]	1,2			20				47
Walnut Creek WTP								
Increase Capacity from 96 mgd to 115 mgd (add filters)	1,2	14		14				47
Leland Pumping Plant	1,2	47					47	47
High-Rate Sedimentation Units [a]	1,2			20				50
Ultraviolet Light Disinfection [a]	1,2			20				50
Sobrante WTP								
Ozone Upgrades	1,2						50	50
Filter-to-Waste Equalization Basin	1,2						52	52
Backwash Water Equalization Basin	1,2						52	52
High-Rate Sedimentation Units	1,2						52	52
Chlorine Contact Basin	1,2		20					
Upper San Leandro WTP								
Ozone Upgrades	1,2						54	
Filter-to-Waste Equalization Basin	1,2						54	
Distribution System Improvements	1,2	18		21			22	Sec 2.6

[a] Program-level projects.
[b] As it relates to water aging and mixing

As noted on DEIR pp. 2-42 and 2-43, the backwash system would include settling and UV disinfection before return to the influent of the plant. The approach would provide a dual barrier of against recycling of viable cryptosporidium.

ORIN-11B The comment suggests that the DEIR inadequately explains the need for the Backwash Recycle System at the Orinda WTP and fails to address the potential impacts of, and alternatives to, installing the backwash system at the Orinda WTP.

See **Response ORIN-11A** regarding the need for the Backwash Water Recycle System. The impacts of the backwash system are addressed in pertinent sections throughout Chapter 3 of the DEIR.

The backwash system proposed at the Orinda WTP is the same design as the recently implemented (October 2006) backwash system at the Walnut Creek WTP. A consultant report evaluating alternative backwash water treatment systems for the Walnut Creek WTP recommended the system based on its reliability. The same backwash system design was chosen for the Orinda and Lafayette WTPs based the previous review of alternatives for the Walnut Creek WTP. In addition, implementing consistent systems among similar WTPs will lead to more efficient District-wide operations.

ORIN-12 For purposes of the DEIR analysis, discontinuation of discharge from the filter backwash treatment system was assumed to have an adverse effect on water quality if it affected beneficial uses of San Pablo Creek. As stated on DEIR p. 3.5-3, these beneficial uses include fish migration, noncontact water recreation, warm freshwater habitat, and wildlife habitat. However, as noted in the 2004 Contra Costa Creeks Inventory and Watershed Characterization Report prepared by the Contra Costa Clean Water Program, habitat for steelhead in the San Pablo Creek Watershed is limited to stream reaches below San Pablo Dam. Therefore, discontinuation of the discharge would not affect fish migration because the Orinda WTP is located upstream of the San Pablo Reservoir.

As noted in Section 3.6 of the DEIR, Biological Resources (pp. 3.6-13 and 3.6-15), San Pablo Creek adjacent to the Orinda WTP is swift and has variable water levels due to urban runoff and discharges from the WTP. The WTP discharges consist of (a) surplus raw water from the Lafayette Aqueducts and (b) the backwash flows. While the total amount of water discharged from the Orinda WTP ranges from approximately 10 percent to 50 percent of the total creek flow, the backwash discharge component accounts for only about 2 percent to 15 percent of the total flow. The project would not change the quantity of water discharged to the creek from the Aqueducts and would have a minimal impact on overall flows. The variable creek flows likely make the habitat unsuitable for special status species, including California red-legged frog and western pond turtles.

In addition, discontinuation of discharge from the filter backwash treatment system would eliminate a potential source of toxicity to San Pablo Creek and therefore would be beneficial to aquatic life in general.

ORIN-13 Refer to **Response ORIN-12**.

ORIN-14 The comment states that alternatives to the proposed backwash water recycling system at the Orinda WTP might be preferable. The comments states in particular that use of ultraviolet disinfection could create a smaller footprint, allow EBMUD to reduce its use of chloramine, and possibly eliminate the need for additional clearwells at the Orinda WTP.

As noted in **Response BM-9**, the use of UV in the primary treatment train would not eliminate the need for certain facilities, particularly the backwash facilities, nor would it result in any changes to the desired chloramines dosages in the distribution system. See **Response BM-9** for more in-depth discussion on these topics.

ORIN-15 The comment suggests that the DEIR does not clearly explain why particular distribution system improvements are necessary. The comment further says that the DEIR does not "explain in one coherent passage how the various project elements are interrelated, why they are all necessary under both alternatives, and whether there are any alternatives that would fulfill the Project objectives."

An overview of the need for the distribution system projects to meet demand and to upgrade infrastructure is included in DEIR Section 2.2.2. In addition, the need for each improvement is given along with the description of the improvement in DEIR Section 2.6. There is no single reason or need that uniformly applies to all of distribution system improvements. For example, as noted in DEIR Section 2.6.5, the Happy Valley Pumping Plant and Pipeline is planned to remedy a problem with inadequate pumping capacity and to meet existing and anticipated future demand, while the Highland Reservoir described in DEIR Section 2.6.6, is intended to remedy operational and service problems in the pressure zone.

One of the District's objectives in preparing the EIR was to present to the public a comprehensive understanding as to how these individual water projects fit into EBMUD's larger water treatment, storage and distribution operational scheme for the Lamorinda/western Walnut Creek portion of its service area. All of the distribution system projects are within the pressure zones serving this portion of the service area as discussed on DEIR p. 2-11 and shown in DEIR Figure 2-3. The distribution system improvements in the DEIR are required regardless of the alternative (Alternative 1 or 2) selected to address the water treatment and treated water transmission needs. Although many project components stand alone operationally, they are all part of an integrated regional water system. Alternatives to the individual distribution system improvements are discussed in Chapter 6, Analysis of Alternatives, Sections 6.6 through 6.9 and in Section 6.10.3.

ORIN-16 The comment inquires about how the proposed clearwells at the Orinda WTP under Alternatives 1 and 2 would improve water quality as compared to continuing to use the reservoirs west of hills.

As described in the DEIR (pp. 2-44 – 2-47, pp. 2-55 – 2-56), the proposed program-level clearwell at the Orinda WTP would improve water quality by preventing water that does not meet water quality regulations from entering the Claremont Tunnel, and therefore the distribution system, as can occur when water is stored in the reservoirs west of hills. The proposed clearwell would also reduce water age and further improve water quality in the distribution system by allowing the water in the clearwells to turn over during a single day. The last paragraph that begins on DEIR p. 2-44 explains this.

The clearwell proposed for the Orinda Sports Field site is analyzed at a program level of detail in the DEIR (see DEIR Table S-3, Map D-OWTP-1 and Map D-OWTP-2). Should EBMUD decide to pursue additional storage capacity at this location, the District will undertake further environmental review pursuant to CEQA. See **Response BM-8** regarding additional discussions on the need for clearwells.

As described on DEIR p. 2-59, the project-level clearwell under Alternative 2 would provide equalization storage for the intake to the proposed Los Altos Pumping Plant No. 2.

ORIN-17 The comment questions whether the Alternatives 1 and 2 address the identified needs. Refer to **Responses ORIN-7** and **ORIN-11a**. As indicated in **Response ORIN-11a,** due to an editorial error, the column headings in summary Table 2-3 were not in the correct order. The corrected version of the table now indicates that four of the proposed project-level facilities at the Orinda WTP under Alternative 2 address demand. These are not improvements to the treatment process train *per se*, since the Orinda WTP has sufficient *treatment* capacity[1], but are improvements that would be needed to pump and convey the water from the Orinda WTP eastward to the service area of the Lafayette WTP.

As indicated in **Response ORIN-18**, below, operations at the Orinda, Sobrante and Upper San Leandro WTPs would be altered such that the Orinda WTP could make up for the decommissioning of the Lafayette WTP.

ORIN-18 Alternative 2 would indeed achieve the project's stated goals (refer to **Responses ORIN-7** and **ORIN-11**). Less water from the Orinda WTP would flow to the area west of hills under Alternative 2 and would instead flow east to Lafayette WTP via the new tunnel; the Sobrante and Upper San Leandro WTPs would be operated at higher rates to supply the area west of hills. The text on DEIR p. 2-14 has

[1] Refer to DEIR Figure 2-10, a series of schematic flow diagrams indicating the various steps in water treatment processing, and those aspects of Orinda WTP operations proposed for improvement under Alternatives 1 and 2. As shown, there is no need to expand filtration capacity at the Orinda WTP under either Alternative 1 or Alternative 2.

been revised to clarify this (refer to Section 3.2 of this Response to Comments document). As shown in DEIR Table 2-4, the existing capacity of Sobrante and Upper San Leandro WTPs is sufficient to meet this additional demand. Thus, no corresponding increase in capacity is necessary.

ORIN-19 Please refer to Section 2.1.1, Master Response on Program- and Project-Level Distinctions, for detailed discussion of the issues raised by this comment. The District disagrees that the approach taken in the DEIR with respect to program-level elements is inconsistent with CEQA and with the comment's statement that the evaluation of program-level elements is superficial. As explained in the DEIR and at the public meetings, the improvements discussed at a program level will not be implemented by EBMUD without further environmental review under CEQA. The WTTIP EIR is therefore properly a program EIR from which EBMUD will "tier" its later environmental review of specific activities that may be implemented as part of the WTTIP program if certain factors are present in the future.

ORIN-20 EBMUD agrees that a program EIR – like any other EIR – must provide a detailed analysis of known and foreseeable issues at the time it is developed. However, the level of detail required in a program EIR depends on the nature of the project elements being analyzed and how far the program activities have been developed. (CEQA Guidelines § 15152(b)).

The WTTIP EIR is consistent with the tiering principles in CEQA. It also follows an approach that has been used for other water projects to accommodate the unique nature of these projects. In this document, EBMUD has analyzed the environmental impacts of the treatment and transmission system improvements, including the elements discussed at a programmatic level, with as much specificity as is feasible – that is, to the extent such impacts are reasonably foreseeable and non-speculative at this time – and has proposed mitigation for such impacts where appropriate under CEQA. With respect to the program-level elements, this analysis may be found in the DEIR on the following pages:

- Pp. 2-40, 2-44 to 47, 2-50, 2-61, 2-85 to 87 (describing activities);
- Pp. 3.2-19 to 22 (analysis and mitigation of land use impacts);
- Pp. 3.3-48 to 50 (analysis and mitigation of visual quality impacts);
- Pp. 3.4-33 to 36 (analysis and mitigation of geology, soils, and seismicity impacts);
- Pp. 3.5.46 to 51 (analysis and mitigation of hydrology and water quality impacts);
- Pp. 3.6-70 to 79 (analysis and mitigation of biological resource impacts);
- Pp. 3.7-32 to 35 (analysis and mitigation of cultural resource impacts);
- Pp. 3.8-23 to 26 (analysis and mitigation of traffic and circulation impacts);
- Pp. 3.9-33 to 35 (analysis and mitigation of air quality impacts);

- Pp. 3.10-51 to 56 (analysis and mitigation of noise and vibration impacts);
- Pp. 3.11-38 to 41 (analysis and mitigation of hazards and hazardous materials impacts);
- Pp. 3.12-21 to 22 (analysis and mitigation of public services and utilities impacts);
- Chapter 4 (growth-inducement potential and secondary effects of WTTIP project, including all program-level elements);
- Chapter 5 (cumulative impacts of WTTIP project, including all program-level elements).

For all of the elements discussed at a programmatic level, including most notably the large clearwell proposed for the Orinda WTP, the WTTIP EIR is not the final environmental document. Environmental review by EBMUD, as well as approval by the EBMUD Board, will take place prior to issuance of any design and/or construction contracts for program-level WTTIP elements (see Section 2.7 of the DEIR). Where a more specific and detailed analysis of an impact becomes feasible at the time of this subsequent environmental review, EBMUD will undertake such an analysis, in compliance with CEQA. (Sections S.3.1, S.6, 2.7, 3.1.2, and 3.1.4 of the DEIR).

Please also refer to the Section 2.1.1, Master Response on Program- and Project-Level Distinctions, for a more detailed discussion of the issues raised by this comment.

ORIN-21 The WTTIP is a collection of projects to upgrade the water treatment and transmission system. The EIR describes it as such and analyzes the impacts of each individual element, the impacts of the projects collectively, and the impacts of the projects in combination with other cumulative development.

The EIR serves as both a project EIR and a program EIR. With as much detail as is feasible, the WTTIP EIR describes each of the program-level and project-level elements, including how these elements are related to each other and to the WTTIP project as a whole (DEIR Chapter 2) and analyzes the environmental impacts of both elements discussed at a programmatic level and the elements discussed at a project level (DEIR Chapters 3.1 through 3.12). The WTTIP elements are all part of an integrated regional water system. The WTTIP also contains chapters analyzing the growth-inducing potential (Chapter 4) and cumulative impacts (Chapter 5) of the WTTIP, both of which assume full implementation of all elements of the WTTIP.

Please also refer to the Section 2.1.1, Master Response on Program- and Project-Level Distinctions, for a more detailed discussion of the issues raised by this comment.

ORIN-22 The DEIR has acknowledged that subsequent environmental review, and CEQA documentation and approval will be required prior to implementation of any of the

program-level elements of the WTTIP project. (Sections S.3.1, S.6, 2.7, 3.1.4 of the DEIR.)

By including the program-level elements along with the project-level elements in the WTTIP EIR, EBMUD has provided the public and the EBMUD Board with an opportunity to review and consider the reasonably foreseeable environmental impacts of the WTTIP project as a whole, before making a decision about any portion of the project. In doing so, EBMUD is fulfilling three important goals of the CEQA process: (1) providing for environmental review at the earliest feasible time; (2) avoiding "piecemeal" review that could underestimate the environmental impacts of a large, complex project such as the WTTIP project; and (3) identifying issues of concern to agencies and other interested persons early to help scope subsequent environmental documentation on program-level elements.

The CEQA process will not have to be started anew for each programmatic element described in the EIR. Rather, the subsequent review will build on, and tier from, the analysis provided in the EIR.

Please also refer to the Section 2.1.1, Master Response on Program- and Project-Level Distinctions, for a more detailed discussion of the issues raised by this comment.

ORIN-23 The DEIR includes extensive analysis of WTTIP project-level elements. The potential impacts of those projects are discussed and presented in hundreds of pages of text and graphics in Chapters 3, 4 and 6. These chapters also discuss and provide mitigation where appropriate for all project-level actions.

Please also refer to the Section 2.1.1, Master Response on Program- and Project-Level Distinctions, for a more detailed discussion of the issues raised by this comment.

ORIN-24 This comment summarizes CEQA requirements for impact analyses and then asserts that the EIR fails to meet these requirements based on subsequent comments. Refer to subsequent responses.

ORIN-25 The EIR preparers disagree with the assertion that Land Use, Planning, and Recreation must be addressed in separate sections of an EIR.

The DEIR (pp. 3.2-12 and 3.2-13) addresses consistency between the WTTIP and general plans and other plans in accordance with CEQA Guidelines Section 15125(d). DEIR Appendix D summarizes the content of general plans prepared for the WTTIP area by land use planning agencies and the EBMUD *East Bay Watershed Master Plan*. DEIR pp. 3.2-12 and 3.2-13 note that overall, implementation of the WTTIP appears to be consistent with general and regional plans. In addition, the WTTIP would help local jurisdictions achieve general plan goals and policies to provide a high-quality water

supply, address capacity deficiencies, and improve emergency response capabilities by increasing the water available for firefighting. This section of the DEIR also describes several potential inconsistencies with the land use and zoning designations of applicable jurisdictions and with the general plans of local jurisdictions (including with City of Orinda Safety Implementing Policy 4.2.2.N regarding adequate medical and other emergency services). The DEIR also notes that, in accordance with state law, determinations of project consistency with general plans would be made by the land use jurisdictions.

Further, Section 3.2.3 of the DEIR evaluates whether proposed project components would conflict with adjacent existing land uses, resulting in division of an established community.

ORIN-26 See **Response ORIN-25** regarding the DEIR discussion of consistency between the proposed WTTIP and general plans and other plans which is addressed in accordance with CEQA Guidelines Section 15125(d). Section 15125(d) requires that EIRs discuss any inconsistencies between a project and general and regional plans as part of the Environmental Setting. The Guidelines (Sections 15358(b), 15382, *et seq*) also emphasize that the impacts analyzed under CEQA must be related to a *physical* change in the environment. A potential inconsistency with a general plan policy does not in all cases mean that a significant change in the physical environment is expected to result.

CEQA Guidelines Section 15064.7, Thresholds of Significance, indicates that (a) each public agency is encouraged to develop and publish thresholds of significance that the agency uses in the determination of the significance of environmental effects and that (b) thresholds of significance are to be adopted for general use as part of the lead agency's environmental review process and must be adopted by ordinance, rule, or regulation, and developed through a public review process. EBMUD adopted the CEQA Guidelines in their entirety, as periodically updated.

The environmental checklist was used for the proposed project to identify issues that warranted further evaluation in the EIR, and some checklist items addressing specific conditions in the physical environment were adapted as significance criteria. In Section 3.2, the DEIR discusses local plans and policies and consistency with these in accordance with CEQA. The DEIR notes that generally inconsistencies are expected to be short term because the impacts would last only during construction. Exceptions have been discussed in the DEIR and the physical impacts would be mainly to biological resources, visual quality and traffic. Refer to Sections 3.3, 3.6, and 3.8.

ORIN-27 DEIR p. 3.2-11 acknowledges that the proposed Sunnyside Pumping Plant project site is surrounded by low-density single-family residential development and open space. Project site development and DEIR preparation included extensive review of local area general plan and zoning maps and documentation, and contact with local

planning departments. City of Orinda Planning Maps appear to identify the Sunnyside Pumping Plant project site within City of Orinda boundaries as Residential SF (1-2 units per acre). The City of Orinda Planning Department identified parcel #365-450-008, within the City of Orinda, as owned by Orinda Downs Homeowner Association, but did not indicate any land dedication for that parcel. On the basis of information provided in this comment, text on DEIR p. 3.2-11 (paragraph 1 and paragraph 4) has been revised (refer to Section 3.2, Text Revisions, in this Response to Comments document).

Please also refer to Section 2.1.3, Master Response on EBMUD Obligations to Comply with Local Ordinances and Obtain Local Agency Approvals for further response to the issues raised by this comment.

ORIN-28 This comment is a general summary of certain CEQA regulations and court decisions regarding analysis of visual quality. This summary does not take into account all relevant language in the CEQA regulations and court rulings that may apply in specific circumstances, including those involving documents such as the WTTIP EIR. This comment summarizes more detailed comments presented in Comments ORIN-30 through ORIN-38; refer to **Responses ORIN-30** through **ORIN-38**.

ORIN-29 The following discussion highlights the reasons the project would conform to the Orinda General Plan, Circulation Element Scenic Corridor policies.

Policy 2.3.2-P: Camino Pablo from its intersection with Santa Maria Way north to the City limits is among the routes that are designated Scenic Corridors on the General Plan.

To address the commenters' concern, eight photographs were taken along the designated Scenic Corridor portion of Camino Pablo to document a range of existing visual conditions found within this roadway corridor (Figures 3 and 4). In Figures 3 and 4, Photos 29a, 29b, 29e, and 29f convey the project's visual setting and demonstrate the project's conformity with Scenic Corridor policies that apply to development located within the Camino Pablo corridor viewshed. The photos portray a variety of existing development that can be seen in foreground views. For example, commercial buildings appear prominently in views from Camino Pablo near Santa Maria Way, south of the Orinda WTP (Photos 29a and 29b). In the immediate project area, residential buildings appear in foreground views from Camino Pablo near Manzanita Drive (refer to Photos 29e and 29f). North of the Orinda WTP site, single family residential structures and portions of the Wagner Ranch Elementary School are noticeable elements seen in the foreground views from Camino Pablo.

As indicated on DEIR pp. 3.3-38, due to the presence of dense roadside vegetation, the project would only be visible from a relatively short segment of Camino Pablo. DEIR Figures 3.3-S3a and 3.3 S3b show close range "before" and "after" views of the project without landscaping and with landscaping at five years of maturity as seen

29a. Camino Pablo looking southeast towards Santa Maria Way

29b. Camino Pablo looking north from Camino Sobrante

29c. Looking east from El Toyonal at Camino Pablo

29d. Camino Pablo looking southwest near North Lane

SOURCE: Environmental Vision

Figure 3

Existing Visual Character along Camino Pablo

29e. Camino Pablo looking southwest from near Claremont Avenue

29f. Camino Pablo looking west from near Manzanita Drive

29g. Camino Pablo looking northwest toward Monte Vista Road

29h. Camino Pablo looking east toward Wagner Ranch Elementary School

SOURCE: Environmental Vision

Figure 4

Existing Visual Character along Camino Pablo

from Camino Pablo. As indicated in the visual simulation (DEIR Figure 3.3-5b), within five years the proposed landscaping would substantially screen views of the building and storage tank as seen from the Camino Pablo corridor. Given the presence of dense roadside vegetative screening and the substantial additional screening that would be achieved within five years, the project would not substantially change the existing visual character experienced along the Camino Pablo designated Scenic Corridor. For these reasons and the documentation of existing visual conditions, the project's appearance is considered consistent and compatible with the existing visual character experienced from Camino Pablo corridor in the project vicinity.

Policy 2.3.2-Q. Special care shall be taken to provide a well landscaped and open feeling along Scenic Corridors, especially at the entrance to the City, utilizing such techniques as generous landscaped setbacks and open space acquisition, where appropriate.

The new structures proposed at the Orinda WTP would be set back more than 100 ft. from Camino Pablo. The conceptual landscape plan presented as DEIR Figure 3.3-L2 calls for clusters of drought tolerant trees and shrubs to be installed near portions of the new above ground facilities. The new planting would compliment the existing mature landscaping currently seen along Camino Pablo and Manzanita Drive. As discussed above and demonstrated in DEIR Figure 3.3 S3b, within five years the proposed landscaping would substantially screen views of the new structures. The project therefore conforms to General Plan Circulation Element Scenic Corridor Policy 2.3.2-Q.

Policy 2.3.2-R: Any proposed development or subdivision along a Scenic Corridor or Scenic Highway shall be designed to blend with and permit the natural environment to be maintained as the dominant visual element. It shall not lessen the scenic value of existing visual elements.

The existing visual character found along the Camino Pablo Scenic Corridor includes a variety of natural and built features, including houses and commercial buildings as well as areas of dense roadside vegetation. Given the presence of dense roadside vegetative screening and the additional landscape screening that would be achieved within five years, the project would not substantially change the existing visual character along the Camino Pablo corridor in the project vicinity, nor would it lessen the scenic value of existing visual elements. The project therefore conforms to General Plan Circulation Element Scenic Corridor Policy 2.3.2-R.

Policy 2.3.2-S: Where structures are permitted, they shall be designed to blend with and permit the natural environment to be maintained as the dominant visual element.

Based on the previous discussion outlined under General Plan Circulation Element Scenic Corridor Policies 2.3.2-P through R and in light of the analysis presented on DEIR p. 3.3-38 and illustrated on DEIR Figure 3.3 S3b, it can reasonably be

expected that the project would blend with the surrounding landscape setting and would therefore conform with General Plan Circulation Element Scenic Corridor Policy 2.3.2-S.

ORIN-30 The DEIR (p. 3.3-17) identifies the significance criteria used in the DEIR (substantial degradation of existing visual character, substantial damage to scenic resources, substantial adverse effect on a scenic vista, and substantial new sources of light and glare). The DEIR further describes the specific factors used to determine what is "substantial":

- extent of project visibility from sensitive viewing areas such as designated scenic routes, public open space, or residential areas;
- the degree to which the various project elements would contrast with or be integrated into the existing landscape;
- the extent of change in the landscape's composition and character; and
- the number and sensitivity of viewers.

Consideration of the duration of visual impacts is implicit in the significance criteria. The DEIR properly characterizes both shorter-term construction-phase and longer-term visual changes at project sites consistent with CEQA and with these significance criteria. EBMUD provides a thorough description of the visual quality and character, as well as the public views and view corridors, for each project site (see DEIR pp. 3.3-4 through 3.3-17); associated figures (at the end of DEIR Section 3.3) support the site-specific project narratives.

The DEIR (p.3.3-19, last paragraph; p.3-3.3-23, first two paragraphs) indicates that the degree to which construction activities would be noticeable varies among the sites based on existing conditions (DEIR p. 3.3-19). The analysis highlights the projects that would involve construction activities at undeveloped sites, and identifies the 10 sites that are within the context of an existing water facility, where most construction activity could be less noticeable. There would be less change to the landscape's composition and character in areas where there are existing water facilities. Similarly, the DEIR notes that construction at proposed WTTIP sites would occur within generally developed urban/suburban areas where temporary construction activity might be expected (DEIR p. 3.3-23). Although all construction-related impacts were considered to be less than significant, EBMUD has still committed to implementing the following mitigation measure (DEIR p. 3.3-23, new text is underlined):

> **Measure 3.3-1:** For stationary (non-pipeline) projects expected to be constructed over a period of one year or more, the District will require the contractor to ensure that construction-related activity is as clean and inconspicuous as practical by storing building materials and equipment within the proposed construction staging areas or in areas that are generally away from public view and by removing construction debris promptly at regular intervals <u>and placing black fabric fence screening on fences where feasible</u>.

The comment states that some construction projects could last a long period of time. Some of these projects with longer durations are examined at a program level. Subsequent CEQA analysis of program-level elements would characterize (and, if deemed necessary, mitigate) construction-phase visual impacts. In terms of project-level elements in Orinda, some of these are pipeline projects which while highly visible, would progress from one roadway segment to the next typically at a rate of about 80 feet per day (see Figure 2-9, DEIR p.2-38, for a description of construction techniques). The stationary projects based in Orinda include the Orinda WTP, Happy Valley Pumping Plant, Ardith Reservoir and Donald Pumping Plant, and the shafts of the Orinda-Lafayette Aqueduct. All of these sites all have some level of vegetative screening, as described in the setting, which would assist in addressing construction-phase visual impacts. These stationary projects are also subject to Measure 3.3-1, which would serve to reduce any visible negative aesthetics of the construction site itself.

Regarding the Orinda-Lafayette Aqueduct, while Map D-OLA-1 is a photograph of a typical tunnel entry shaft construction site, the photograph was taken by someone suspended from the crane and does not represent a view available to any residents living near the tunnel shaft sites or to vehicles on nearby streets. Measure 3.10-1e (DEIR p. 3.10-33) would require the contractor to erect sound barriers around the shaft sites to "interrupt the line-of-sight" between some equipment and residential receptors. The sound barrier, therefore, would also function as a visual barrier. The crane would extend above the barrier; however, the crane would not significantly disrupt or encroach on views. (It should also be noted that EBMUD staff is not recommending Alternative 2.)

ORIN-31 Night lighting will not be required for dewatering. EBMUD also will not be working at night during the construction of the basins at the Orinda WTP and Happy Valley pipeline near Lauterwasser Creek. Therefore, night lighting will not be required during construction in these areas.

ORIN-32 The DEIR includes a set of visual simulations that show proposed project features from 15 representative public vantage points. New visual simulations from additional vantage points are also presented in this Response to Comments document (Figures 7, 8, 17, 18, 19, 20, 27, 28, 29, 30). In order to provide a complete depiction of potential visual impacts, the visual simulations portray proposed project features at two stages 1) without any landscape screening and 2) with the landscaping at 5 years of maturity.

Computer modeling and rendering techniques were employed to produce the visual simulation images. The computer-generated visual simulations are the results of an objective analytical and computer modeling process. Steps in the computer-assisted simulation process include shooting site photography with a single lens digital camera and documenting photo viewpoint locations using GPS recording, photo log sheet and basemap annotation. Subsequent steps include developing an initial digital model of existing conditions based on topographic data and a three–dimensional

model of the proposed project components based on project engineering design data. Computer "wireframe" perspective plots were overlaid on photographs to verify scale and viewpoint location before digital visual simulation images were produced based on computer renderings of the 3-D model combined with digital versions of selected photographs. The visual simulations are based on conceptual engineering design data provided in digital and hardcopy format by District engineers. The visual simulations are accurate within the constraints of available data.

In addition, conceptual landscape plans, designed to provide screening of new facilities, are proposed as part of the WTTIP. The planting concepts (presented in the DEIR 3.3 Visual Quality Figures section) are also intended to enhance the appearance of the new facilities and to integrate them with their visual setting. In addition, proposed landscaping is designed to provide a measure of erosion control at the project sites. The WTTIP conceptual landscape plans include a recommended plant palette of drought-tolerant trees and shrubs. Table 3.3-3 (on DEIR pp. 3.3-20) provides a suggested list of the trees and shrubs, with estimates of plant heights at both 5- and 20-year maturity levels.

ORIN-33 See **Response ORIN-29**.

ORIN-34 EBMUD acknowledges the typographical error. The new solids pumping plant will have an approximate footprint of 800 square feet.

ORIN-35 DEIR Map D-OWTP-3 presents two cross-section drawings showing the above-ground and at-grade structures in the area of the site north of Manzanita Drive. As noted on the DEIR p. 3.3-39 and illustrated on DEIR Map C-OWTP-2, some vegetation clearing would occur in the area north of Manzanita Drive; however, the existing vegetation along the site's Camino Pablo and Manzanita Drive frontage would be preserved. It is expected that this perimeter vegetation would generally screen views toward the site interior. Therefore the new at-grade and above-ground facilities would not be particularly noticeable. In addition, Measure 3.3-2a specifies that "the District will also install replacement vegetation: 1) north of Manzanita Drive at the Orinda WTP (Alt. 2) in order to provide additional screening of new above ground facilities and 2) along Mt. Diablo Blvd, at the eastern edge of the Lafayette WTP (Alt. 2), near the exit drive." (DEIR p. 3.3-35)

Figure 5 presents four new photos taken from Manzanita Drive. The additional photos, taken in October 2006, illustrate the fact that mature perimeter landscaping and earth berms provide considerable screening with respect to views of the site interior from Manzanita Drive. These additional photos support the conclusion that with implementation of Measure 3.3-2a through 3.3-2c the visual impact at this location would be less than significant.

35a. Manzanita Drive near Camino Pablo looking northeast

35b. Manzanita Drive at entry gate looking west towards Camino Pablo

35c. Manzanita Drive east of entry gate looking northwest

35d. Manzanita Drive east of entry gate looking northeast

SOURCE: Environmental Vision

EBMUD Water Treatment and Transmission Improvements Program . 204369

Figure 5

Views from Manzanita Drive

ORIN-36 Figure 6 presents four new photos taken from the residential area located downhill to the north and northwest. Photos 35a and 35b were taken from Leslee Lane looking southwest and south respectively. The photos demonstrate the presence of dense intervening vegetation. Photo 35b includes a filtered view of the site. Photos 35c and 35d, taken from Lavina Court, indicate that views of the site from this area are generally screened by dense intervening vegetation or residential development. These additional photos support the conclusion that with implementation of Measure 3.3-2a through 3.3-2b the visual impact at this location would be less than significant.

DEIR Figure 3.3ARRES-5 is a conceptual landscape plan for the Ardith Reservoir and Donald Pumping Plant site. The plan includes clusters of trees and shrubs at the north and northwest side of the site which are designed to screen potential views from the private residential properties located downhill to the north and northwest.

To respond to the commenters' concern that the visual simulations for Ardith Reservoir are potentially misleading, Figures 7 and 8 present new "before" and "after" views of the Ardith Reservoir from a slightly elevated vantage point. The photo was taken near the top of the slope embankment situated along the east side of Ardith Drive (refer to DEIR Figure 3.3 ARRES-3, Photo A6 and Map 3.3-ARRES-1). The visual simulations indicate that existing vegetation and new landscaping proposed as part of the project would largely screen views of the new reservoir. In addition, Photo A5 on DEIR Figure 3.3 ARRES-3 demonstrates the fact that, as seen from this area rear yard fences generally obstruct residential views toward the Ardith Reservoir site. Therefore the visual impact at this location would still be considered be less than significant.

ORIN-37 EBMUD regrets that neighbors of the Ardith site on Lavina Court and Leslee Lane were inadvertently left off the mail list for the public meetings held in Orinda on July 27 and August 2. After this lack of individual notice was discovered, EBMUD was able to notify the neighbors on September 6 and EBMUD held a special neighborhood meeting on September 12 to discuss the improvements at the Donald Pumping Plant site. Although it is not required by CEQA, EBMUD endeavors to individually notify landowners directly impacted by District projects where possible.

The new Ardith Reservoir and relocated Donald Pumping Plant are described in Section 2.6.1 of the DEIR. The proposed layout for the new tank and relocated pumping plant, as well as the existing facility to be demolished, are shown on Map D-ARRES-1 and D-ARRES-2. The description of the proposed hydraulic improvements taking place at an "Existing EBMUD facility" is correct. The intent of the footnote was to inform the readers that the work would take place on existing EBMUD property (i.e. at the site of the existing facility), as opposed to EBMUD purchasing and developing new property for the project. The footnote was not intended to be misleading, but instead was intended to provide further information on the status of properties, including the property off Ardith Drive.

35a. Leslee Lane looking southwest

35b. Leslee Lane looking south

35c. Lavina Court near Ivy Drive looking southeast

35d. Lavina Court looking south

SOURCE: Environmental Vision

EBMUD Water Treatment and Transmission Improvements Program . 204369

Figure 6

Views from Leslee Lane and Lavina Court

Existing View looking west from Ardith Drive embankment

Visual Simulation of Proposed Improvements without landscaping

For Viewpoint Location Refer to: 3.3-ARRES-1

EBMUD Water Treatment and Transmission Improvements Program . 204369

SOURCE: Environmental Vision

Figure 7

Visual Simulation without Landscaping -
Ardith Reservoir from Ardith Drive Embankment

Existing View looking west from Ardith Drive embankment

Visual Simulation of Proposed Improvements with landscaping at 5 years Maturity

For Viewpoint Location Refer to: 3.3-ARRES-1

EBMUD Water Treatment and Transmission Improvements Program . 204369

SOURCE: Environmental Vision

Figure 8

Visual Simulation with Landscaping -
Ardith Reservoir from Ardith Drive Embankment

ORIN-38 Existing vegetation would provide a measure of screening with respect to views from the adjacent residence. The new perimeter wall/fence would provide additional visual screening.

In order to address site-specific visual concerns that could potentially arise, Measure 3.3-2a indicates that the District will coordinate with and involve neighborhood representatives during development of the final landscaping plan for the Happy Valley Pumping Plant. Measure 3.3-2c specifies that the Happy Valley Pumping Plant structures and buildings will include architectural treatment and design elements to enhance their appearance and to reduce potential visual contrast with the surrounding landscape setting. In addition, Measure 3.3-2c specifies that the design of new walls, gates and fences at the Happy Valley Pumping Plant will include aesthetic architectural treatment.

ORIN-39 This comment improperly characterizes Darwin Myers' August 8, 2006 letter as a geotechnical report. As noted in the first footnote of the comment letter, the Darwin Myers letter is a "review." The letter Mr. Myers prepared, at the request of the City of Orinda, provides his technical comments on the Geology, Seismicity, and Soils chapter of the DEIR and on the supporting documentation used to complete the DEIR chapter. Mr. Myers' letter does not constitute a standard geotechnical report because Mr. Myers did not conduct geotechnical exploration and testing and does not provide recommendations and conclusions for soils or foundation engineering. Responses to Mr. Myers' comments on the DEIR are found below.

The DEIR does not defer analysis of geologic hazards to a time after project approval. The Draft Geotechnical Impact Assessment (AGS, 2005) uses available data and information to analyze and disclose the potential geological and seismic hazards at the project sites, which could occur given the various local geologic environments. Other sources, including the Draft Lamarinda Tunnel Conceptual Study (Jacobs Associates, 2005), the Seismic Stability Evaluation Report, Moraga Reservoir Dam (EBMUD, 2003), and published geologic data from the California Geological Survey (CGS) supplemented and were incorporated into the geological evaluations presented in the Geotechnical Impact Assessment report. The geologic data and information used to develop the supporting studies relied on findings from published reports and mapping, field reconnaissance, previous geotechnical evaluations, and subsurface boring and tunneling data. The DEIR presents a geologic evaluation for each project site and provides that information in Section 3.4.2, Setting, and Section 3.4.3, Impacts and Mitigation Measures. For instance, Section 3.4.2 (DEIR pp. 3.4-2 through 3.4-4) defines, for each project site, the soil type, range in slope, erosion hazard, potential for expansive soils, and corrosivity. The seismicity section (DEIR pp. 3.4-4 through 3.4-8) describes the seismic setting for each site and provides the predicted peak ground acceleration and distance to major faults for each project element site. Section 3.4.3 discusses each of the project sites, whether it is affected by an identified geologic hazard, and whether the hazard constitutes a significant impact. For instance, the DEIR (p. 3.4-16, Impact 3.4-1) addresses slope conditions and

whether there is a potential impact related to unstable slopes. Under this particular impact, the analysis describes the slope condition at each project site, and concludes whether, based on the available data and knowledge of the site, a potentially significant impact could occur. The DEIR characterizes site conditions for each project component including the geologic and seismic conditions and potential hazards and provides an analysis of each related impact on a site by site basis.

The DEIR does not defer mitigation of geologic hazards "to a time after project approval," as asserted in the comment. The DEIR does, however, provide a means to minimize the impacts relating to geology and seismicity to a less-than-significant level through standard geotechnical engineering practices. The DEIR's approach to mitigation of geological impacts is adequate under CEQA because it prescribes mitigation measures that 1) EBMUD is committed to completing; 2) are tied to specific performance standards, or desired end results of the mitigation; 3) provide a range of options, based on established industry standards, to achieve the performance standards; and in some cases, 4) are tied to a recognized guideline or established practice.

Measures 3.4-1 though 3.4-4 require that EBMUD commit to completing design-level geotechnical studies during the design phase of all the WTTIP project components. Design-level geotechnical studies are standard practice throughout the engineering industry and are intended, in part, to inform the design structural engineer as to the specific foundation requirements with consideration to soil type, site topography, and underlying geologic materials. In some cases, geotechnical investigations are necessary to determine whether it is feasible to construct in a particular area; this is not the case, however, for the WTTIP projects because EBMUD considered construction feasibility during their preliminary site selection process. Design-level geotechnical investigations are typically not conducted prior to project approval because site-specific development plans may change during the CEQA process; it is not practical to embark on a geotechnical exploratory or testing program without first establishing final development plans. EBMUD, as standard practice, performs geotechnical investigations as part of the final design phase of its facility development and, therefore, would be committed to incorporate into project specifications geotechnical engineering recommendations to reduce or eliminate existing or potential geologic and seismic hazards.

Mitigation measures prescribed in the DEIR, (Measures 3.4-1 through 3.4-4) are based on performance standards for the end result that the mitigation must achieve. Evaluation and mitigation of geologic and seismic hazards through a design-level geotechnical investigation ensures that, as the end result, the hazard would be reduced to a less-than-significant level. Unlike most other subject areas in the EIR, the performance standards for geology and seismic hazards do not have numerically-based performance standards; the mitigations rely on standard geotechnical engineering practices and strategies to reduce the hazard. The comment states that none of the mitigation measures contain performance standards. To address this comment, each of the mitigation measures and the accompanying performance standards are discussed

below and, where appropriate, text has been added to provide additional clarification regarding the measure.

Measure 3.4-1

The performance standard within Measure 3.4-1 is the reduction and elimination of potential slope failure hazards; i.e., that all slopes affected by the project shall remain stable under both static and dynamic conditions. Slope stability would be achieved through standard geotechnical investigation methods and implementation of engineering recommendations developed by the investigation. Methods of investigation could include, as stated in the measure (DEIR p. 3.4-26), field reconnaissance, slope stability modeling and soil testing. Unstable slopes identified during design of WTTIP projects would be evaluated and mitigated to current engineering standards by California registered engineers and geologists. The comment states that this measure lacks adequate performance standards; to assist in understanding the standards, the text of Measure 3.4-1 has been revised to provide clarification (refer to Section 3.2, Text Revisions, in this Response to Comments document). The mitigation 1) commits the District to complete the appropriate geotechnical study, 2) establishes parameters for the performance standard, and 3) provides a range of options to achieve the stated performance standard.

Measure 3.4-2

The performance standard for Measure 3.4-2 (DEIR, p. 3.4-25) is to design structures to "withstand the highest expected peak acceleration, set forth by the CBC for each site." Recommendations to achieve this would be developed by a geotechnical engineer and would be incorporated into the final design and construction of the proposed facilities. This measure is adequate because it specifies that the District will commit to the mitigation and establishes parameters for the performance standard.

Measure 3.4-3a

The performance standard described in Measure 3.4-3a is to reduce or eliminate the adverse effects of expansive or compressible soils. The geotechnical investigation would identify the problematic soil conditions and develop the most appropriate strategy to correct them. Typically, poor soil conditions are reduced or eliminated through standard geotechnical engineering practices and grading strategies, as listed in the measure. The comment states that this measure lacks adequate performance standards; to assist in understanding the standards, the text of Measure 3.4-3a is revised to provide clarification(refer to Section 3.2, Text Revisions, in this Response to Comments document). The measure 1) commits the District to complete the appropriate geotechnical study, 2) establishes parameters of the performance standard, 3) is tied to established guidelines (the Uniform Building Code [UBC]), and 4) provides a range of options to achieve the performance standard.

Measure 3.4-3b

The performance standard within Measure 3.4-3b requires that all fill materials placed during construction be selected, placed, compacted and inspected to the specifications of a California registered professional engineer, in accordance with project plans and specifications that are based on standard and accepted engineering practice. The text revision clarifies the performance standard (refer to Section 3.2, Text Revisions, in this Response to Comments document). This measure is adequate because 1) it commits the District to complete fill placement under the supervision of a registered professional with knowledge in soil engineering, 2) it relies on established practices, and 3) it establishes parameters for the performance standard.

Measure 3.4-4

The performance standard within Measure 3.4-4 is the minimization of secondary ground failure due to liquefaction; the desired future condition through mitigation is that underlying geologic materials would not be susceptible to liquefaction during an earthquake. This would be achieved through standard geotechnical investigation methods, which would include collection of subsurface soil data to determine the liquefaction potential, as stated in the measure (DEIR p. 3.4-32). If a liquefaction hazard is identified, the conditions would be rectified using appropriate and feasible measures that are common in geotechnical engineering practice and are used in construction throughout the San Francisco Bay Area. The comment states that this measure lacks adequate performance standards; to assist in understanding the standards, the text of Measure 3.4-4 is revised to provide clarification (refer to Section 3.2, Text Revisions, in this Response to Comments document). The mitigation 1) commits the District to complete the appropriate geotechnical study, 2) establishes parameters for the performance standard, 3) is tied to a recognized guideline (SP-117)[2], and 4) provides a range of options to achieve the performance standard.

The comment states that deferral of mitigation "also prevents the analysis of potential secondary or indirect environmental impacts of mitigation measures" and gives the example of dewatering excavations and soil replacement near creeks to mitigate liquefaction. Standard construction engineering strategies, intended to reduce or eliminate geologic or seismic hazards, are rarely expected to result in significant secondary impacts. Since many of the proposed project sites have been previously developed and geologic conditions are generally known, it is not anticipated that any geotechnical mitigation measure implemented during this project would cause significant secondary or indirect environmental effects or require public comment before project approval. In addition, all construction projects are required to complete a Stormwater Pollution Prevention Plan (SWPPP) and obtain a permit prior to discharging dewatering water to the storm drain or sanitary sewer. Fill placement in

[2] SP-117 applies to areas that have been zoned under the Seismic Hazards Mapping Act (SHMA) as having a potential for earthquake-induced landslides and liquefaction. Requiring conformance with SP-117 for proposed project sites with a potential for liquefaction and not only those subjected to zoning under the SHMA, provides a reliable and consistent program for assessing potential liquefaction sites.

creeks, if determined necessary during the design-level geotechnical investigation, would at least be regulated under the SWPPP and would likely require a permit through the California Department of Fish and Game and/or the U.S. Army Corps of Engineers. Engineered slope repair, soil densification, soil replacement, deep foundations, soil compaction, and other remedies stated above all occur in the construction area and are part of standard construction operations.

ORIN-40 Refer to **Response ORIN-39**. As noted, many of the proposed project sites have been previously developed and geologic conditions are generally known.

ORIN-41 As discussed in **Response ORIN-39**, EBMUD is committed, through the mitigation measures in the DEIR, to conduct design-level geotechnical investigations for sites with the potential to result in geologic and seismic hazards. It is not expected that this process would frustrate applicable approval processes, and the findings and recommendations resulting from these investigations would be made available to the City of Orinda for review where the encroachment permits are required. Please also refer to Section 2.1.3, Master Response on EBMUD Obligations to Comply with Local Ordinances and Obtain Local Agency Approvals for further response to the issues raised by this comment.

ORIN-42 The significance criteria addressed by NPDES permit compliance are whether the project would:

- Violate any water quality standards or waste discharge requirements;
- Substantially alter the existing drainage patterns in a manner that would result in substantial erosion or siltation on or off the site;
- Create or contribute runoff water that would exceed the capacity of existing or proposed stormwater drainage systems or provide substantial additional sources of polluted runoff.

All stormwater and treated water discharges occurring under the WTTIP would be conducted under an NPDES permit issued by the RWQCB as discussed in Section 3.5 of the DEIR, Hydrology and Water Quality. Because compliance with these permits requires compliance with water quality regulations as well as the plans, policies, objectives and criteria of the Basin Plan, water quality objectives deemed protective of water quality by the State of California would be met. Since it would not be appropriate for the EIR to assume that the NPDES permit conditions would be willfully violated, water quality impacts related to a discharge regulated by an NPDES permit would be less than significant, as further discussed below.

Each NPDES permit specifies discharge and receiving water limitations based on the *Policy for Implementation of Toxic Standards for Inland Surface Waters, Enclosed Bays, and Estuaries* (State Implementation Policy); plans, policies, and water quality objectives and criteria of the Basin Plan; *Water Quality Standards, Establishment of Numeric Criteria for Priority Toxic Pollutants for the State of California* (California

Toxics Rule); applicable federal regulations (Title 40 of the Code of Federal Regulations, Parts 122 and 131); the National Toxics Rule; and best professional judgment as defined in the Basin Plan. To ensure compliance with these criteria, each permit requires preparation of plans describing the methods that will be used to achieve the stated water quality goals (subject to the approval of the RWQCB); self monitoring and reporting to demonstrate compliance with these criteria; and corrective actions if permit limitations are exceeded.

Furthermore, the RWQCB may amend or revoke, and reissue the NPDES permit if investigations show that the discharge could potentially cause or contribute to adverse effects on water quality and/or beneficial uses of the receiving waters. They can also amend the permit if water quality objectives change or additional pollutants could exceed water quality objectives, or to incorporate waste load allocations determined during the TMDL process. The RWQCB may also revoke the permit in accordance with federal regulations if the discharger fails to meet the permit requirements, or if the RWQCB finds that the permitted discharge endangers human health or the environment.

These permit modification and revocation provisions ensure that discharges will remain in compliance with water quality objectives should the nature of the discharge or applicable water quality criteria and policies change.

The specific components of applicable NPDES permits that would ensure compliance with water quality criteria and objectives are discussed in individual responses below.

ORIN-43 NPDES permits are typically issued for a period of five years. The Regionwide General NPDES Permit would likely be reissued when it expires, and discharges from the water treatment plants would be managed in accordance with the requirements of the reissued permit. Because any discharge to surface water requires an NPDES permit, these discharges would be managed in accordance with applicable NPDES requirements, including an individual NPDES permit if necessary, at the time of construction regardless of whether if the Regionwide General Permit is reissued.

See **Response ORIN-42** regarding how permit compliance ensures that water quality impacts related to discharges of storm water and treated water are less than significant. Please also refer to Section 2.1.3, Master Response on EBMUD Obligations to Comply with Local Ordinances and Obtain Local Agency Approvals for further response to the issues raised by this comment.

ORIN-44 Effluent and receiving water limitations as well as monitoring requirements of the current Regionwide General NPDES permit are discussed on DEIR pp. 3.5-39 to 3.5-41. As noted by the commenter, and discussed in the DEIR (pp. 3.5-17 and 3.5-18), discharges from the backwash water treatment system at the Orinda WTP have exceeded discharge limitations on four past occasions. These exceedances were

identified through the self-monitoring program required by the NPDES permit, and are the driving factor in discontinuing this discharge under the proposed project. This is not a fault of the permitting process, but demonstrates how compliance with NPDES monitoring requirements allowed identification of a water quality issue. Construction of the new backwash water recycle system, which would eliminate discharge of backwash water to San Pablo Creek, demonstrates EBMUD's commitment to complying with water quality standards. All discharges under the WTTIP would continue to comply with NPDES permit requirements, including self monitoring, and corrective action would be taken should discharge limitations be exceeded. With regard to the comment on permit reissuance, see **Response ORIN-43** above.

Specific discharge limitations, monitoring and reporting requirements, and corrective action requirements are addressed in the Section 3.5 of the DEIR, Hydrology and Water Quality, and more specifically in individual comments regarding specific discharges. Please also refer to Section 2.1.3, Master Response on EBMUD Obligations to Comply with Local Ordinances and Obtain Local Agency Approvals for further response to the issues raised by this comment.

ORIN-45 As discussed in Impact 3.5-1 (DEIR p. 3.5-25) erosion control measures would be specified in the SWPPP prepared in accordance with Section 01125 of the EBMUD construction specifications and the statewide General Permit for Stormwater Discharges Associated with Construction Activity (Construction General Permit) described on DEIR p. 3.5-21. As stated in the DEIR, compliance with Section 01125 of the EBMUD construction specifications and the Construction General Permit would ensure that water quality at all WTTIP sites, including the Orinda WTP, Happy Valley Pumping Plant, and Happy Valley Pipeline, is protected during construction. Specific requirements of the Construction General Permit, which would ensure compliance with water quality objectives, include the following.

- *Implementation of Best Management Practices*. The Construction General Permit states that it is not feasible to establish numeric effluent limitations for pollutants in stormwater discharges from construction activities. However, it requires implementation of Best Management Practices to control and abate the discharges of pollutants. This permit requires that storm water discharges from covered construction sites shall not cause or threaten to cause pollution, contamination, or nuisance. Receiving water limitations require that:

  – Storm water discharges to any surface or groundwater shall not adversely affect human health or the environment.

  – The SWPPP developed for the construction activity shall be designed and implemented so that stormwater discharges shall not cause or contribute to an exceedance of any applicable water quality standards contained in a statewide water control plan or the applicable RWQCB's basin plan.

- *Temporary and Permanent Erosion Control BMPs*. The SWPPP, which must be approved by the RWQCB, must include a description and schedule for

deployment of temporary and permanent erosion control BMPs and practices to minimize erosion on disturbed areas of a construction site and prevent a net increase in sediment loads in storm water discharges relative to preconstruction levels. The proposed measures must consider site-specific and seasonal conditions and are required at the appropriate locations along the site perimeter and at all operational internal inlets to the storm drain system at all times during the rainy season. During the non-rainy season, adequate measures must be available to control sediment discharges at downgrade perimeter and operational inlets in the event of a predicted storm.

- *Examples of Erosion Control BMPs*. Although specific erosion control measures would be recommended in the SWPPP prepared by the contractor, they will include measures such as directing runoff from disturbed areas; stabilizing disturbed areas; using barriers to control sediment-laden runoff from disturbed areas; installing temporary slope breakers; placing silt fencing to promote sedimentation behind the fence; creating storm water retention basins; protecting stockpiled soil from runoff with hay bales or silt fencing; or immediately revegetating disturbed areas.

- *Inspection and Maintenance Program*. The SWPPP must also include a discussion of the program to inspect and maintain all BMPs for the entire duration of the project, and a qualified person must be assigned the responsibility to conduct the inspections. Inspections must be performed before and after storms, and once each 24-hour period during extended storm events to identify BMP effectiveness and implement repairs or design changes as soon as feasible. Equipment, materials, and workers must be available for rapid response to failures and emergencies. Inspectors must be adequately trained. The contractor must also certify annually that construction activities are in compliance with the SWPPP and General Permit.

- *Corrective Action for Exceedances*. If it is determined by the discharger, SWRCB, or RWQCB that stormwater discharges are causing or contributing to an exceedance of an applicable water quality standard, the discharger would be required to immediately implement corrective actions, notify the RWQCB by phone within 48 hours, and follow up with a written report within 14 days. The report must identify the cause of the exceedance, corrective actions already taken, additional corrective actions to be implemented, and any required repair or maintenance of BMPs. The report must include an implementation schedule for corrective actions and describe actions taken to reduce the pollutants causing or contributing to the exceedance. The SWPPP and monitoring program must also be revised immediately after the report to the RWQCB to incorporate additional requirements. Any other instances of non-compliance must be reported to the RWQCB within 30 days. If the RWQCB determines that water quality can not be adequately protected under the Construction General Permit, it may require an individual NPDES permit for construction activities.

ORIN-46 See **Response ORIN-45** regarding performance standards and how permit compliance requires and reasonably ensures adequate protection of water quality during construction activities.

ORIN-47 Section 01125 of the EBMUD construction specifications is included in all construction contracts issued by the District, and therefore compliance with the

requirements of this section is considered part of the project, and not a mitigation measure. As discussed in Impact 3.5-1, the contractor is required by this section of the construction specifications to implement erosion and sedimentation control measures and protect receiving water quality for all projects, and to comply with NPDES stormwater permitting requirements for applicable projects. Adherence to the requirements of this section is monitored through contract compliance monitoring by the District.

ORIN-48 The DEIR acknowledges in Impact 3.5-1 (DEIR p. 3.5-29) and Table 3.5-4 that county encroachment permits will be required for stream crossings for the Happy Valley Pipeline as well as other projects. Compliance with encroachment permitting requirements is specified in Measure 3.5-1b. This measure also specifies compliance with CDFG and the U.S. Army Corps of Engineers requirements pertaining to wetlands or streambeds, including associated water quality protection requirements of the RWQCB.

Permits obtained from the CDFG, US Army Corps of Engineers, and RWQCB, specified in Measure 3.5-1b and in Measure 3.6-2c of the Biological Resources section of the DEIR, would specify measures for the protection of water quality and fish and wildlife resources and the information included in the DEIR is sufficient to support the development of those measures. The DEIR also proposes, and EBMUD commits to implementing, a range of mitigation measures designed to minimize potential impacts to these resources. Mandatory compliance with the terms and conditions of the required permits and EBMUD-proposed mitigation measures would reduce impacts on these resources to less-than-significant levels.

Measures proposed in the DEIR for the protection of water quality and fish and wildlife resources are presented in Measures 3.6-2a through 3.6-2f of the Biological Resources section of the DEIR and include confining construction activities to areas above or below the stream crossing, or through use of jack-and-bore construction where feasible. Other mitigation measures include: establishing a minimum 25-foot construction exclusion zone; conducting work activities in creeks during low-flow periods unless otherwise approved by the permitting agencies; minimizing removal of riparian and wetland vegetation; installing silt fencing at the edge of established buffer zones; storing equipment and materials away from waterways to the extent feasible; prohibiting debris within 60 feet of a creek channel for most projects; requiring proper and timely maintenance for vehicles and equipment used during construction; conducting maintenance and fueling away from the creek; implementation of interim measures to protect the creek from erosion during construction; and recontouring and revegetating portions of the creek following construction.

Further, in their July 16, 2006 comment letter, the Contra Costa County Flood Control & Water Conservation District states that the DEIR addresses their concerns about natural watercourses (see **Comment C3FC-5**).

Please also refer to Section 2.1.3, Master Response on EBMUD Obligations to Comply with Local Ordinances and Obtain Local Agency Approvals for further response to the issues raised by this comment.

ORIN-49 The statements in the DEIR that dewatering discharges could affect water quality within a water body are meant to indicate that water quality could be affected without proper controls. However, as discussed in the impact analysis for Impact 3.5-2, preparation of a water control and disposal plan in accordance with Section 01125 of the EBMUD construction specifications, including compliance with the regulations of the RWQCB, CDFG, county flood control districts, and any other regulatory agency having jurisdiction would ensure that water quality impacts related to construction dewatering would be less than significant for all projects requiring dewatering, including the Orinda-Lafayette Aqueduct; therefore, no mitigation is required. **Response ORIN-42** describes how compliance with NPDES permitting requirements ensures that water quality impacts related to discharge to a waterbody would be less than significant.

ORIN-50 Creek crossings are noted in the discussion of Impact 3.5-2. For each project that would include a creek crossing, the potential for dewatering is noted. As discussed in **Response ORIN-49**, preparation of a water control and disposal plan in accordance with Section 01125 of the EBMUD construction specifications, including compliance with the regulations of the RWQCB, CDFG, county flood control districts and any other regulatory agency having jurisdiction, would ensure that water quality impacts related to construction dewatering would be less than significant for all projects requiring dewatering; no mitigation is required.

Discharges of water required for mitigation of liquefaction hazards, discussed in Impact 3.4-4, would also be less than significant with preparation of a water control and disposal plan in accordance with Section 01125 of the EBMUD construction specifications, including compliance with the regulations of the RWQCB, CDFG, county flood control districts, and any other regulatory agency having jurisdiction.

ORIN-51 According to the referenced article, incidents attributed to EBMUD include a water main break last year that reportedly killed 30 Sacramento Sucker fish in Strawberry Creek in Berkeley. However, to the contrary, a representative of the Urban Creeks Council said a solvent release was responsible for the reported fish loss.

Unplanned discharges are more difficult to control than planned discharges due to their unpredictable nature and location. The State Water Resources Control Board in developing the draft Total Residual Chlorine and Chlorine-Produced Oxidants Policy, found that it is "…infeasible to regulate potable water discharges that occur in the field due to the activities of drinking water utilities or agencies." The SWRCB's draft policy further directs permitting agencies to regulate these discharges "….through requirements for appropriate Best Management Practices." EBMUD has

developed and implements Best Management Practices to prevent or eliminate adverse impacts to the maximum extent practicable from such sources.

A 2004 American Water Works Association Research Foundation study titled "Assessment and Renewal of Water Distribution Systems" estimates that the nationwide leak rate for mains to be in the range of 23 to 27 leaks per 100 miles per year. The study identifies a rate of 20 leaks or less per 100 miles per year as a benchmark for a well-maintained system. For the past 20 years, the average for EBMUD's District-wide system has been 20 leaks per 100 miles per year, with the last five years averaging 19 leaks per 100 miles per year.

Key elements of EBMUD's surface water protection programs include: Best Management Practices for Dechlorination, Leak Response Program, Pipeline Replacement Program, Leak Detection Program and Training. EBMUD provides a 7-day, 24-hour response capability in responding to water line leaks. A District response can be initiated by calling 1-866-40-EBMUD. Based on data collected over a 2-year period, the average response time for an EBMUD inspector to arrive onsite for all responses is 38 minutes. EBMUD inspectors are fully equipped and authorized to start dechlorination activities immediately upon arrival at a leak site. Given EBMUD's implementation of these surface water protection programs, the potential for water quality impacts related to an emergency discharge would be less than significant and no mitigation is necessary.

ORIN-52 As discussed in the Setting section of Section 3.5, Hydrology and Water Quality (DEIR p. 3.5-13), municipal NPDES Permit No. CAS0029912 issued to the Contra Costa Clean Water Program by the San Francisco Bay RWQCB requires new development and redevelopment projects that create or replace 10,000 or more square feet of impervious surfaces to incorporate certain design and landscape features. These features are intended to maximize infiltration, promote retention or detention, slow runoff, and minimize impervious surfaces so that post-development pollutant loads from a site are reduced to the maximum extent possible. The general types of stormwater control measures that could be used to achieve these goals are described in Section 3.2, Text Revisions, in this Response to Comments document. In addition, projects that create or replace more than one-acre of impervious surfaces would be required to manage post-construction runoff not to exceed pre-construction levels if the increase in peak runoff flows or runoff volume could cause increased erosion of creek beds or banks, silt pollutant generation, or other adverse effects that would affect beneficial uses of the receiving water.

All of the water treatment plant projects and the proposed reservoir construction and replacement projects (Ardith Reservoir and Donald Pumping Plant, Fay Hill Reservoir, Highland Reservoir, and Moraga Reservoir) would involve the creation of impervious surfaces. However, all of these sites, with the exception of the Walnut Creek WTP, disturb one or more acres of land for construction and will require a General Construction Stormwater Permit as described in the Setting and Impact 3.5-1.

Upon completion of construction, a post-construction stormwater management plan describing stormwater controls would be prepared, including a maintenance schedule for installed post-construction BMPs, as required by the General Construction Stormwater Permit, and coverage under the General Construction Stormwater Permit would not be terminated until this plan is in place, permanent erosion control measures are in place, and the site is in compliance with all local stormwater management requirements. With compliance with these requirements, water quality impacts related to creation or replacement of impervious surfaces would be less than significant.

In the case of the Walnut Creek WTP, the project would increase the impervious surface by 11,350 square feet under both alternatives. However, approximately 8,000 square feet of the impervious area is the construction of the filter basins which will retain rainfall and will not contribute to runoff from the site and therefore will have a less-than-significant impact.

Changes have been made to the text to address this information and to clarify the conclusion that impacts are less than significant (refer to Section 3.2, Text Revisions, in this Response to Comments document).

Please also refer to Section 2.1.3, Master Response on EBMUD Obligations to Comply with Local Ordinances and Obtain Local Agency Approvals for further response to the issues raised by this comment.

ORIN-53 If the new municipal stormwater permit has lower thresholds for impervious surfaces, EBMUD will comply with the new permit requirements. As noted in response to **ORIN-52**, the DEIR has analyzed and provided measures to address potential impacts of increasing impervious surfaces.

ORIN-54 Section 15151 of the CEQA Guidelines sets forth the Standards for Adequacy of an EIR. The Guidelines confirm that a CEQA document is judged in the light of what is reasonably feasible.

The DEIR discloses the full range of impacts that could result from project activities. DEIR pp. 3.6-34 through 3.6-39 characterizes for each project-level element (and both alternatives): (a) whether construction activities would occur at or near (within 100 feet of) streams, wetlands, or riparian habitat; (b) direct effects to these resources (e.g., where pipeline alignments cross creeks – Lafayette WTP under Alternative 1, Moraga Road Pipeline, etc.); (c) quantification of these impacts where possible, based on available information (e.g., Lafayette WTP – Alternative 1, Lafayette Reclaimed Water Pipeline, Moraga Road Pipeline); and (d) potential indirect effects (e.g., soil run-off from earthwork). The DEIR also proposes, and EBMUD commits to implementing, a range of mitigation measures designed to minimize potential impacts to less-than-significant levels. The mitigation measures proposed to reduce these impacts reflect a preference for avoidance and minimization of impacts to

streams, wetlands, and riparian habitat (see Measures 3.6-2a and 3.6-2b) over compensating for the impacts by replacing the damaged resources (Measure 3.6-3c). The feasibility of trenchless construction techniques for pipelines depends on some factors that cannot be fully known with certainty at this time (e.g., conditions in an encroachment permit); nevertheless, the mitigation strategy set forth in Measures 3.6-2a through 3.6-2f ensures that these impacts can be reduced to less-than-significant levels. The DEIR thus has adequately disclosed impacts and proposes adequate mitigation measures pertaining to streams and wetlands.

Permits required for the WTTIP project as a whole or for specific project elements may include a Nationwide or Individual Permit from the Corps, a Water Quality Certification from the RWQCB, and a Streambed Alteration Agreement (SAA) from CDFG. These permits, obtained prior to project implementation, contain conditions of approval designed to minimize adverse effects on wetland resources. The processes for obtaining any state or federal wetlands permits involve the development of compensatory actions similar to CEQA-derived mitigation in scope and intent, including the completion and verification of a wetland delineation and the development of mitigation options and methods. Mandatory compliance with the regulations regarding wetland and stream protection, as well as compliance with the terms and conditions of any required permits, would reduce potential direct impacts to streams to less than significant

ORIN-55 The DEIR includes a discussion of the presence of wetlands and potential impacts in Chapter 3. Because the DEIR commits EBMUD 1) to fulfill a regulatory requirement by preparing a wetland delineation for sites where stream or wetland impacts are unavoidable, and 2) to implement additional specific mitigation measures designed to minimize stream and wetland impacts, the failure to include a wetland delineation as part of the DEIR is not an impermissible deferral of mitigation, as this comment asserts. The DEIR does not imply that all impacts to jurisdictional waters can be minimized or avoided but, rather, states that EBMUD will attempt to do so wherever feasible (see previous response). A formal wetland delineation is not a required element of an EIR, and is not, in itself, considered to be a mitigation measure, but is instead a part of the wetland permitting process independent of the CEQA review for a project. Preparation of a wetland delineation in the context of wetland permitting is a regulatory requirement under most circumstances. EBMUD must prepare and have verified a wetland delineation before implementing project elements that will occur in the vicinity of streams and wetlands. The wetland permitting process will impose terms and conditions in addition to the mitigation measures proposed in the DEIR. Compliance with these terms and conditions, which are designed to minimize impacts to streams and wetlands, as well as implementation of the DEIR wetland mitigation measures, will reduce potential impacts to streams and wetlands to less-than-significant levels.

ORIN-56 EBMUD acknowledges the potential for habitat impacts as a result of the use of energy dissipation devices and the DEIR provides for mitigation of these impacts if

they cannot be avoided. The DEIR text is revised to clarify this (refer to Section 3.2, Text Revisions, in this Response to Comments document).

ORIN-57 The discussion in the text (Section 3.6 of the DEIR) and the information presented in Appendix D of the DEIR, present information on the habitat requirements of special-status wildlife, including bats, that may occur within the project area, as well as their potential to occur at specific sites. Mitigation measures proposed in the DEIR to minimize impacts to specific species are based on Biological Opinions and other guidelines and protocols promulgated by the various agencies, such as CDFG and USFWS, responsible for wildlife protection, as well as on consultation with these agencies for many similar projects. Biological Opinions and species-specific guidelines and protocols are prepared by and/or rely upon the expertise of wildlife biologists who are familiar with the habitat requirements, life cycles, and breeding habits of the species in question. The preparers of this DEIR assume that the proposed mitigation measures are feasible and adequate for protection of the species in question.

ORIN-58 The analysis of biological resources impacts is consistent with the information currently available on the program-level elements (see Section 2.1.1, Master Response on Program- and Project-Level Distinctions). The DEIR preparers describe the habitat characteristics in the vicinity of the Orinda WTP and San Pablo Reservoir in the draft document. The DEIR indicates that the development of the program-level elements near the Orinda WTP, including the San Pablo Pipeline, would require substantial excavation near creeks and the San Pablo Reservoir. There are established protocols accepted by the agencies charged with regulating these resources for mitigating impacts to creeks and Alameda whipsnake habitat to less-than-significant levels (see **Response ORIN-57**). The DEIR acknowledges that specific design and construction information on program-level elements has not been developed and therefore cannot be analyzed at this time. Additional project-specific analysis pursuant to CEQA will be required prior to approval of any program-level element. Nonetheless, the EIR preparers are unaware of any potential design and construction scenarios for these project elements that would cause unavoidable impacts to these resources.

ORIN-59 This comment regarding the status of the white-tailed kite is acknowledged. DEIR text on p. 3.6-17 has been revised to acknowledge the fully protected status (refer to Section 3.2, Text Revisions, in this Response to Comments document).

ORIN-60 The comment states that thorough surveys for archaeological and historical resources have not been conducted and asks that the City of Orinda be included in discussions concerning the design of facilities near the Orinda filter building.

As described on DEIR p. 3.7-8 (under the heading Field Methods) a field reconnaissance was conducted in 2005 by an archaeologist to obtain a general impression of the area's potential to yield significant cultural resource sites and to

visually inspect project areas in relation to known archaeological sites. Because the majority of the project area is highly developed, standard archaeological survey methods have little to no value due to the lack of visible native ground surface and significant alteration of the topographic setting, including those at the Orinda WTP and Orinda Sports Field sites. However, a number of areas of high cultural sensitivity, such as previously undisturbed pipeline routes and undeveloped reservoir sites, were subjected to intensive pedestrian surveys. In these cases, the proposed pipeline route or project facility footprint was walked, using zigzagging transects, and the ground surface inspected for archaeological deposits (e.g., stone artifacts, organic soil residues, fire-cracked rock, etc.). In addition, an architectural historian/preservation planner conducted a field reconnaissance to visually inspect the project sites for known or potential historic architectural resources, including the Orinda WTP property, which had last been surveyed in 1987. The cultural resource surveys discussed above, and the adequate disclosure of potential impacts in the EIR, are adequate to comply with CEQA at this juncture.

Regarding City input on the design of Backwash Water Recycle Facilities, refer to **Response ORIN-62**.

Please also refer to Section 2.1.3, Master Response on EBMUD Obligations to Comply with Local Ordinances and Obtain Local Agency Approvals for further response to the issues raised by this comment.

ORIN-61 The comment states that the San Pablo Pipeline (not the San Pedro Pipeline) could adversely affect cultural resources. The DEIR acknowledges that portions of the San Pablo Pipeline are sensitive for encountering cultural resources during construction, especially near the present-day intersection of San Pablo Dam Road and Bear Creek Road, as well as near the margins of San Pablo Reservoir, as discussed on DEIR pp. 3.7-34 – 3.7-35. As noted throughout the DEIR, however, this element has been evaluated programmatically and EBMUD will conduct project-level CEQA review before approving this or any other program-level project, or prior to adopting this particular alignment as stated throughout the DEIR (see pp. S-5, 2-4, and 3.1.3 for more information). For the San Pablo Pipeline program-level project in particular, the DEIR indicates that measures similar to those described in Measure 3.7-1 (p. 3.7-24) would also likely apply based on the impacts that are likely to be expected when the project-level analysis is conducted. It is also likely that during future, project-level CEQA analysis of this project element, EBMUD will identify the need for additional mitigation, such as Measure 3.7-1b (pp. 3.7-24 – 3.7-25), along part or all of the San Pablo Pipeline alignment. Finally, the DEIR identifies an alternative to the San Pablo Pipeline that the District will evaluate further (reconstructing the San Pablo WTP - see DEIR p. 6-14 for more detail) which will entirely avoid the culturally sensitive areas described above, eliminating the need for any mitigation. As such, the DEIR appropriately characterized the San Pablo Pipeline's potential effects on cultural resources; mitigation measures that would likely apply to this future, program-level element; and a potential alternative to avoid such impacts altogether.

ORIN-62 EBMUD recognizes the sensitive visual and historic setting of the Orinda WTP, and will provide the City of Orinda an opportunity to comment on the proposed designs' compatibility with the treatment plant. Design-level input by the City of Orinda will be taken into consideration by EBMUD. This opportunity for input will be provided even though, as stated on DEIR p. 3.7-15, the Orinda Filter Plant is a water conveyance facility owned and operated by EBMUD is subject to provisions of Section 53091 of the California Government Code. Please also refer to Section 2.1.3, Master Response on EBMUD Obligations to Comply with Local Ordinances and Obtain Local Agency Approvals for further response to the issues raised by this comment.

ORIN-63 Regarding the assertion that the DEIR does not demonstrate that issuance of encroachment permits is necessary, the commenter presumably is referring to assertions expressed in previous comments regarding the need for the project. Refer to **Responses ORIN-9** through **ORIN-16**. Please also refer to Section 2.1.3, Master Response on EBMUD Obligations to Comply with Local Ordinances and Obtain Local Agency Approvals for further response to the issues raised by this comment.

Section 3.8 of the DEIR analyzes traffic and circulation conditions at a level of detail corresponding to expected impacts from project construction activities. The project would not cause long-term effects (e.g., long-term degradation in operating level-of-service conditions on area roadways) because the various project facilities, once installed, would require only maintenance activities similar to those that are now required. The duration of the potential significant impacts would be limited to the period needed to construct the project. Therefore, the DEIR focuses its analysis of impacts and identification of mitigation measures on the non-permanent nature of construction activities.

The DEIR analyzes a full range of potential impacts associated with the WTTIP, specifically short-term increases in vehicle trips by construction workers and construction vehicles (Impact 3.8-1), and reduction in the number of, or the available width of, travel lanes on roads where pipeline construction would occur. In some cases, this would require road closure and detours during construction work hours (Impact 3.8-2); demand for parking spaces for construction worker vehicles; temporary displacement of on-street parking along pipeline alignment routes (Impact 3.8-3); potential traffic safety hazards on public roadways (Impact 3.8-4); access disruption to adjacent land uses and streets for both general traffic and emergency vehicles (Impact 3.8-5); disruptions to transit service (Impact 3.8-6); and increased wear-and-tear on the haul routes used by construction vehicles (Impact 3.8-7).

The DEIR analysis describes in detail the potential impacts associated with each proposed facility focusing on the maximum number of daily and hourly vehicle trips that are estimated to occur during the construction at each facility. The number of construction-related trips would vary among the different facilities, and among the

tasks required. Impacts during other (lower trip-generating) tasks would be less than those described.

In Chapter 5, the DEIR evaluates potential impacts associated with each WTTIP facility project. Final construction scheduling may result in simultaneous or overlapping construction for more than one facility; therefore, potential traffic and circulation impacts associated with overlapping construction are also evaluated.

ORIN-64 Traffic volumes counted on roadways do not measure the capacity of those roads. As stated on DEIR p. 3.8-2, the theoretical daily carrying capacity is the highest traffic volume that can travel on a roadway in a day. The capacity of a roadway is a function of various factors (e.g., the number of lanes, whether traffic streams are separated by a median, the spacing of intersections, whether those intersections are signalized, the existence or absence of left-turn lanes at those intersections, and whether parking is allowed). However, for purposes of planning level analyses, transportation analysts developed average daily traffic volume capacities for different types of road. Based on planning applications of the 2000 *Highway Capacity Manual*, the Florida Department of Transportation has formulated roadway capacity levels (applicable throughout the country) for different types of roads, in urban, suburban and rural settings. For urban areas like the Bay Area, the daily capacity is about 15,000 to 16,900 vehicles (two-lane undivided roads), about 24,000 to 26,000 vehicles (four-lane undivided roads without left-turn lanes at intersections), and about 31,700 to 34,500 vehicles (four-lane divided roads). The theoretical daily carrying capacities cited in the DEIR are at or below these ranges, providing a conservative assessment of the carrying capacity of area roads to accommodate the residential nature of many of the affected routes.

ORIN-65 The DEIR does not omit project-specific analysis of WTTIP facilities in Orinda, as stated in the comment. Table 3.8-5 (DEIR p. 3.8-12) presents estimated maximum daily and hourly one-way vehicle trip generation for each facility, including the Orinda-based facilities, tied to the task during which the maximum daily trips would occur. It also identifies the roadways that construction-generated vehicles would use traveling to and from the worksites. The commenter misinterpreted the examples of noticeable project-related traffic increases, which are, as stated on DEIR p. 3.8-13, on local-serving roadways for which increases in traffic volume would be most noticeable. Camino Pablo is not listed because it is a major arterial, and, as stated on the same page, the increase in traffic on the arterials serving the worksites would not be substantial relative to background traffic volume. The estimated maximum daily one-way vehicle trip generation in Table 3.8-5 would increase the daily traffic volume by less than 3 percent, an increase that is unlikely to be noticed by motorists.

Although the maximum daily one-way vehicle trip generation for the Happy Valley Pumping Plant and Pipeline would not be substantial, text has been added to the bullet list under Project Impact – Facility-Specific on DEIR p. 3.8-13 (refer to Section 3.2, Text Revision, in this Response to Comments document).

ORIN-66 Section 3.8 of the DEIR, Traffic and Circulation, describes the projected traffic, disruption of traffic flows and street operations, as well as other potential impacts due to construction at the project sites. As stated on DEIR p. 3.8-7, a WTTIP project that would cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system is considered to have a significant impact on the environment. Measure 3.8-1 (DEIR p. 3.8-14) stipulates that, to the extent feasible and as needed to avoid adverse impacts on traffic flow, the contractor(s) will be required to schedule truck trips outside of peak commute hours. Therefore, if higher traffic volumes at the time of a WTTIP construction project caused peak-commute-hour congestion to trigger the need to avoid adding truck trips during that period, then Measure 3.8-1 would ensure that impacts were minimized.

ORIN-67 The DEIR addresses impacts associated with pipeline projects along the affected roads, including residential roads, on pp. 3.8-15 through 3.8-18, and pp. 3.8-20 and 3.8-21. Although the project schedule on p. 2-68 indicates both the pumping and pipeline construction would span one to two years, based on the expected average of about 80 feet of pipeline installation per day in paved areas, the Happy Valley pipeline installation would take about 16 weeks. Road closures are caused by insufficient pavement width to safely maintain (at a minimum) alternate one-way traffic flow, not by the capacity or traffic volumes. Specific detour routing is identified on DEIR p. 3.8-21 for Miner Road and Lombardy Lane. While the detour routing during construction work hours would be an inconvenience to motorists, it would not have a significant impact. The added traffic on the detour-route roads could be noticeable; however, its effect on traffic flow would be less than significant because the traffic volumes would remain at levels clearly less than the carrying capacity of the roads.

ORIN-68 EBMUD will undertake some actions directly and will otherwise ensure that the contractor(s) will implement necessary traffic and circulation mitigation measures. EBMUD will review and approve all traffic safety / traffic management plans (and other information needed for the encroachment permit application process) that the contractor(s) will be required to prepare to ensure that they address site-specific concerns. To clarify this point, DEIR Measure 3.8-1 has been revised (refer to Section 3.2, Text Revisions, in this Response to Comments document).

The agencies to whom the traffic plans will be submitted will have approval authority because it is those agencies that issue the encroachment permits for roads for which they have jurisdiction.

ORIN-69 See **Response ORIN-68** regarding the commenter's concern that mitigation for impacts is deferred. Measures are added to the list of requirements in Measure 3.8-1 on DEIR p. 3.8-13 that would be incorporated into contract specifications for the project (refer to Section 3.2, Text Revisions, in this Response to Comments document).

ORIN-70 As stated on DEIR p.3.8-22:

> Pipeline installation in Miner Road and Boulevard Way would require road closure to through-traffic (except emergency vehicles) during construction work hours (as described in Impact 3.8-5, above). Road closures during the hours of transit service would displace the County Connection bus lines that travel on those roads. Unless adequate alternative routing were provided, such displacement would have a significant impact on transit service **and on people who use that service** [emphasis added]. While there would be detour routing available for regular traffic during temporary closure of Miner Road (Happy Valley Pipeline) and Boulevard Way (Tice Pipeline) (as described in Impact 3.8-5, above), those detour routings would not serve as adequate replacement routing for the affected bus lines. County Connection would be consulted to devise acceptable mitigation on a segment-by-segment basis in order to minimize impacts on transit service for riders on the affected bus lines.

As indicated in the text, EBMUD will consult with County Connection regarding additional mitigation (which could include shuttle service) on a segment-by-segment basis; however, the DEIR assumes that for Miner Road, this impact would be unavoidable because adequate replacement routing for buses is not available. Regarding the duration of construction of the Happy Valley Pipeline, refer to **Response ORIN-67**. Regarding compensation, refer to Section 2.1.5, Master Response on Social and Economic Costs.

ORIN-71 Regarding the comment's statement that "Data from the Concord monitoring station show high particulate matter concentrations…," Table 3.9-2 (DEIR p. 3.9-7) indicates that no daily state or federal standards for particulate matter (PM_{10} or $PM_{2.5}$) were exceeded in 2003. The BAAQMD air quality monitoring data for 2004 (see **Comment ORIN-156**) also indicate that the federal standard for $PM_{2.5}$ and PM_{10} was not exceeded and the state standard for PM_{10} was exceeded on only one day in 2004, at the Concord station. The non-attainment status of the air basin as a whole is acknowledged on DEIR p. 3.9-2 (paragraph 3) and p. 3.9-4 (paragraph 4).

ORIN-72 Table 3.9-4, Construction Dust Emissions, in the DEIR identifies grading quantities for all WTTIP projects based on Appendix B, Project-Specific Construction Assumptions. Total grading quantities were converted to a daily rate based on the estimated construction duration for excavation and backfilling phases of each project as outlined in Appendix B. Daily grading quantities were then converted from cubic yards/day to acres/day, and the BAAQMD's emissions factor of 51 pounds per acre per day for uncontrolled construction-related PM_{10} emissions was applied (see ORIN-157, BAAQMD CEQA Guidelines, page 28). For example, in the first row of Table 3.9-4 (Moraga Road Pipeline), a total of 0.15 acres per day was estimated for the project based on grading estimates in Appendix B; when this is multiplied by 51 pounds per acre per day (0.15 x 51), the product is 7.65 pounds per day, which was rounded to 8 pounds per day.

As noted at the top of page 14 of the BAAQMD CEQA Guidelines (**Comment ORIN-157**), the BAAQMD states, *"The District's approach to CEQA analyses of construction impacts is to emphasize implementation of effective and comprehensive control measures rather than detailed quantification of emissions… From the District's perspective, quantification of construction emission is not necessary (although a Lead Agency may elect to do so – see Section 3.3 of these Guidelines, "Calculating Construction Emissions, for guidance)."* "In accordance with the BAAQMD CEQA Guidelines, this EIR does not provide an extensive, detailed quantification of construction dust emissions, but emissions are estimated using the BAAQMD's generalized emissions factor of 51 pounds per acre per day of PM_{10} (consistent with Section 3.3 of these Guidelines as described in the previous paragraph). Generalized emissions estimates are presented to provide an additional frame of reference to support the BAAQMD's emphasis on implementation of control measures rather than quantification of emissions. Generalized emissions estimates are presented to allow for public disclosure and informed Lead Agency decision-making. In Section 3.3, the BAAQMD acknowledges that PM_{10} emissions can be highly variable on a daily basis, depending on factors such as the level of activity, the specific operations taking place, as well as weather and soil conditions (see **Comment ORIN-157**, BAAQMD CEQA Guidelines, page 28).

ORIN-73 Table 3.9-7 (DEIR p. 3.9-30) indicates that the enhanced measures apply to all but five of the WTTIP projects. While basic dust control measures are required for ***all*** WTTIP projects, the enhanced measures were not appropriate for five of the WTTIP projects because of the developed nature of the site (such as the Fay Hill Pumping Plant which is in a shopping center parking lot within an underground vault), limited surface disturbance (Lafayette WTP Alternative 2 would involve decommissioning equipment, which would result in minimal surface disturbance), or where enhanced measures (e.g., limiting travel speeds on unpaved roads or hydroseeding inactive areas) would not be appropriate because of the developed nature of the site. To clarify this, the sentence on DEIR p. 3.9-13 (last sentence of the first full paragraph) has been revised (refer to Section 3.2, Text Revisions, in this Response to Comments document).

In the referenced Table 2 (see **Comment ORIN-157**, BAAQMD CEQA Guidelines, page 14), the BAAQMD recommends that basic control measures be applied to all construction sites, while enhanced control measures be applied "at construction sites greater than four acres in area." For comparison purposes, the playing surface of a football field is slightly over one acre and the BAAQMD recommends that enhanced measures be applied to projects that disturb an area of approximately four football fields. Despite the BAAQMD's recommendation, the DEIR conservatively requires that enhanced control measures be implemented on WTTIP projects with construction sites that involve daily surface disturbance of less than four football fields in equivalent area (i.e., four acres). In addition, the DEIR requires implementation of five exhaust control measures on all WTTIP projects

(Measure 3.9-1c on DEIR p. 3.9-25), even though these measures are not specified or required by the BAAQMD CEQA Guidelines.

ORIN-74 By requiring all of the basic control measures at all WTTIP sites and enhanced measures where more extensive grading would occur, the DEIR correctly and conservatively applies the BAAQMD CEQA Guidelines. Total daily surface disturbance (in acres) is estimated for each project and for the entire WTTIP (all sites) in Table 3.9-4 (DEIR p. 3.9-12) to compare project-related areas of disturbance relative to the BAAQMD threshold of four acres for the enhanced control measures. This table indicates that total area of surface disturbance on a daily basis for the entire WTTIP would be three acres or less, depending on the alternative. The BAAQMD threshold for applying the enhanced control measures is four acres. Therefore, the DEIR's requirement of enhanced measures at all but five of the sites would be more conservative than the BAAQMD's guidelines suggest.

The BAAQMD CEQA Guidelines (**Comment ORIN-157**, page 13) state that optional measures *may* be implemented if further emission reductions are deemed necessary. BAAQMD Guidelines state that basic and enhanced control measures "should be implemented," whereas the BAAQMD "strongly encourages" the optional measures.

The comment notes the four optional dust control measures that are recommended by the BAAQMD for a site which is large, which is located near sensitive receptors, or which for any other reason may warrant additional emissions reductions. These measures are not recommended for this project because of the following feasibility/effectiveness concerns:

- *Install wheel washers for all exiting trucks, or wash off the tires or tracks of all trucks and equipment leaving the site*. Wheel washers are practical only on sites large enough to accommodate haul trucks which actually leave paved streets and drive onto an undeveloped site. This measure would not be effective on small sites; the daily street sweeping required under basic controls would provide more effective dust control on smaller sites. Although it is not required to mitigate WTTIP impacts to a less-than-significant level, EBMUD would consider requiring contractors to implement this measure on any WTTIP sites (WTP and some reservoir sites) where trucks would travel off-road.

- *Install wind breaks, or plant trees/vegetative winds breaks at windward site(s) of construction areas.* Wind breaks would not be an effective control measure since any trees planted at the beginning of project construction would not have enough time to become an effective wind break during the one- to six-year construction periods.

- *Suspend excavation and grading activity when winds (instantaneous gusts) exceed 25 mph.* Compliance monitoring for dust control is generally accomplished by visual monitoring (if dust is visible, then construction activities are not in compliance).

- *Limit the area subject to excavation, grading and other construction activity at any one time.* This measure is typically implemented on large project sites, where dust generation could be considerable if the entire site were graded and disturbed for a long period of time. It would not be applicable to the WTTIP. Table 3.9-4 (DEIR p. 3.9-12) of the DEIR indicates that surface disturbance at each WTTIP site would range between 0.00 and 0.51 acre per day.

ORIN-75 As stated on DEIR p. 3.9-10, although the BAAQMD does not require quantification of construction emissions, the EIR analysis quantifies construction emissions associated with the WTTIP "because of the unique characteristics of the WTTIP — the number of individual projects, the size of some of the projects, and the overall duration of construction activities..." As noted above, the "hybrid approach" supports the conclusion that impacts will be mitigated to a less-than-significant level for each individual project as well as the WTTIP combined. The DEIR requires all WTTIP sites to implement the basic control measures, as required by BAAQMD CEQA Guidelines (see Table 3.9-7 of the DEIR p. 3.9-31). The DEIR also requires all but five WTTIP sites to implement the enhanced control measures (see Table 3.9-7, DEIR p. 3.9-31). Based on the surface disturbance areas listed for WTTIP sites in Table 3.9-4 of the DEIR, this requirement is more conservative than what is required by the BAAQMD CEQA Guidelines. In addition, the DEIR requires implementation of five exhaust control measures on all WTTIP projects (Measure 3.9-1c on DEIR p. 3.9-25), even though these measures are not specified or required by the BAAQMD CEQA Guidelines. Nevertheless, EBMUD would consider requiring contractors to implement applicable enhanced control measures at the five remaining WTTIP sites where they are not currently required, even though current control measures are expected to reduce construction-related dust emissions to a less-than-significant level.

ORIN-76 The BAAQMD CEQA Guidelines (**Comment ORIN-157**) acknowledge that PM_{10} emissions from construction activities can vary considerably depending on factors such as the level of activity, the specific operations taking place, and weather and soil conditions. Similar to its approach to construction dust emissions, the BAAQMD emphasizes implementation of effective and comprehensive control measures for PM_{10} rather than detailed quantification of construction emissions. Current studies of actual construction sites by the South Coast Air Quality Management District (Dr. Steve Smith, CEQA Section, personal communication) demonstrate a high degree of inaccuracy in the computer model assumptions of equipment usage and fuel consumption, as well as high day-to-day variability.

Nevertheless, for the same reasons outlined above under **Response ORIN-75**, this EIR analysis quantifies construction exhaust emissions associated with the WTTIP "because of the unique characteristics of the WTTIP—the number of individual projects, the size of some of the projects, and the overall duration of construction activities...." Exhaust emissions are quantified for each WTTIP site based on cubic yards of material moved (in accordance with the methodology outlined by the BAAQMD for estimating construction equipment exhaust emissions; see

Comment ORIN-157, page 29, BAAQMD CEQA Guidelines) and results are presented in Table 3.9-5, DEIR p. 3.9-14. In addition, the DEIR requires implementation of five exhaust control measures on all WTTIP projects (Measure 3.9-1c, DEIR p. 3.9-25), even though these measures are not specified or required by the BAAQMD CEQA Guidelines. Please note, as discussed in **Response ORIN-82** it is difficult to assess impacts associated with diesel or $PM_{2.5}$ when evaluating short-term construction impacts. Diesel exhaust control measures required under Measure 3.9-1c (DEIR p. 3.9-24) and actions addressed on DEIR p. 3.9-28 would mitigate potential impacts associated with $PM_{2.5}$ to a less-than-significant level.

ORIN-77 The impact analyses in Sections 3.9 and 3.10 of the DEIR both assume that in worst-case conditions generators, not line power, would be used at tunnel shafts. Use of line power is a recommended mitigation measure for air quality (Measure 3.9-1c) and is cross-referenced as a mitigation in the noise impact discussion (see cross-references on DEIR p. 3.10-18 for Orinda WTP, Alternative 2 and DEIR p. 3.10-22, Orinda-Lafayette Aqueduct, Alternative 2 Tunnel).

It is not known, however, whether adequate voltage for heavy equipment operations can be supplied at each construction site in a reasonably economical manner, or whether power lines can be run without affecting other environmental concerns (visual, biology, land use, etc.). Use of line power instead of generators is therefore recommended *where feasible*. A specific finding of feasibility will be made for each individual construction site. Since line power may not be available at all locations and a generator may be used, the noise analysis also includes mitigation measures to ensure noise impacts from any stationary noise sources or equipment, in the event they are used, are adequately mitigated (Measure 3.10-1a, DEIR p. 3.10-30).

ORIN-78 Secondary impacts from power consumption cannot be predicted with accuracy because of the deregulated power market. Electricity used by expanded water distribution facilities can come from anywhere in the western United States. Therefore, there is no direct correlation between on-site power use and any particular power generation facility in the Bay Area Air Basin. Nonetheless, DEIR p. 3.9-33 has attempted to analyze the PG&E contributions to the regional power grid and noted projections in increases in renewable resources. Also see **Response ORIN-100**.

ORIN-79 "Program-level" activities will be subject to project-level CEQA analysis if those activities are determined to be necessary and when a more detailed project description (e.g., for the second clearwell at the Orinda WTP that might be necessary in the future) has been developed. A thorough CEQA review is not feasible without such a detailed project description. It is the BAAQMD's conclusion that standard mitigation measures will achieve a less-than-significant construction dust impact except in unusual circumstances. Any "unusual" construction projects, by virtue of their nature or their location near sensitive land uses, would likely incorporate

additional mitigation beyond standard BAAQMD recommendations as a result of project-level review.

ORIN-80 As noted by the commenter, hydrogen sulfide exposure is an occupational hazard in underground construction for which worker protection measures must be in place. If ventilation air contains excessive levels of hydrogen sulfide or methane, then it must be scrubbed or diluted before discharge into the atmosphere (see Measure 3.9-3). The discharge air from an underground tunnel flows through a confined space, making it amenable to capture and treatment. Industrial hygiene regulations require such treatment for worker safety in very close proximity to the point of discharge. Public exposure is several orders of magnitude less than restricted worker exposure because of additional dilution effects. The OSHA worker protection requirements for personnel working in a tunnel or other confined space ensure that public exposure will not be health-threatening. See Appendix H for more information regarding the regulatory framework for hazards and hazardous materials.

ORIN-81 "Gassy" refers to the methane levels in the construction tunnel. A gassy tunnel may or may not also have hydrogen sulfide in concentrations which exceed worker safety levels. When tunnels are gassy, a large number of OSHA worker-protection requirements are triggered. As noted above, achieving mandated worker protection creates a high likelihood of corresponding public protection because of the dramatic dilution factor of the worker exposure air versus the levels that will ultimately reach the public.

There are no ventilation shafts or other potential conduits for gaseous emissions from the tunnel proposed along the tunnel alignment. The only two locations where tunnel emissions could occur would be the tunnel entry and exit shafts. The DEIR assumes ventilation systems would only be at these two locations. Please see the Tunnel Classification and Safety section of Appendix H beginning on page H-5 for more information.

ORIN-82 The "grave health risks" cited by the commenter that are associated with $PM_{2.5}$ exposure derive primarily from the diesel exhaust component of $PM_{2.5}$. Soil particles from fugitive dust do not readily break down into $PM_{2.5}$, and most soil material is fairly inert. Diesel exhaust health risk is assessed based on continuous, long-term exposure to an emissions source (exposure of a resident to a specified level of diesel $PM_{2.5}$ outside their home for 24 hours per day, 365 days per year, over 70 years). Therefore, a health risk assessment, which assumes this level of long-term exposure, is clearly inappropriate for evaluating $PM_{2.5}$ exposure due to a temporary construction project because of the shorter project duration and expectation that any exposure would be brief.

Because of the variability and unknown behaviors of source and receptor distributions, it is not feasible to prepare an accurate impact assessment for $PM_{2.5}$ exposure. It should be noted that the $PM_{2.5}$ estimates presented in the DEIR are

based on real-life documentation. In addition, the ISCST3 computer model routinely used for this type of analysis works best when applied to point sources (smokestacks, etc.) or area sources (large grading areas, entire airports, shipyards, landfills, etc.), not line sources (single roadways).

In the BAAQMD CEQA Guidelines recommendations for construction, the emphasis of the impact assessment is on mitigation because the quantification of emissions and risks is imprecise. Diesel exhaust control measures required under Measure 3.9-1c (DEIR p. 3.9-24) and actions addressed on DEIR p. 3.9-28 would mitigate potential impacts associated with $PM_{2.5}$ to a less-than-significant level. EBMUD will also consider requiring contractors to use soot filters on construction equipment exhaust where diesel equipment will operate in proximity to sensitive receptors.

ORIN-83 To be considered substantial (which the commenter does not define), an increase in ambient noise must be at a level that creates an adverse human response. Noise ordinances are generally written such that a violation of ordinance standards is presumptive proof of a noise nuisance. The sleep disturbance and speech interference, thresholds applied in the DEIR, are intended to identify nuisance potential even if levels do not exceed some ordinance standards. Application of these thresholds is based, in part, on findings of the U.S. Environmental Protection Agency,[3] which determined that public health and welfare can be degraded when environmental noise interferes with a range of human activities including: speech communication in conversation and teaching; telephone communication; listening to TV and radio broadcasts; listening to music; concentration during mental activities; relaxation; or sleep.

A change in noise levels from one day to the next, even if clearly noticeable, does not constitute a significant impact if it does not substantially interfere with normal human activities. The human perception threshold of changes in noise levels is approximately 3 dB under ambient conditions. To provide an example, in a country setting, if normally one car passed by the house during the day the passage of two cars per day would increase noise levels by 3 dB. While this is humanly perceptible, it is not, as the commenter appears to suggest, a significant noise impact in most settings. In formulating the DEIR analysis, a definition of substantial change based on decibel levels or audibility alone without considering whether there is any adverse human reaction, as suggested by the commenter, was not considered to be appropriate. This is the reason that EBMUD used the detailed significance criteria described on DEIR pp 3.10-5 and 3.10-8 to evaluate noise impacts and it is consistent with the approach taken in other EIRs.

[3] U.S. Environmental Protection Agency, *Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety.* March 1974.

ORIN-84 Leq is not a 24-hour measurement parameter as suggested, but rather the average during a specific measurement period. The commenter references DEIR p. 3.10-1, which defines Leq as the acoustical energy of a given measurement, whereas the text goes on to define Leq (24) as the steady-state energy level measured over a 24-hour period. Traffic noise on public roadways is typically evaluated in terms of the weighted 24-hour average (CNEL), a General Plan noise standard, because local jurisdictions are pre-empted from regulating on-road noise through local codes. Since haul trucks would only operate during the daytime, the use of CNEL would dilute the predicted impact. Therefore, daytime Leq during the hauling period was used in this analysis as a more conservative, worst-case analysis parameter. Table 3.10-7 (DEIR p. 3.10-34) identifies noise levels as Leq, not Leq (24).

The commenter also states that truck noise should be evaluated as a single noise event. Table 3.10-4 (DEIR p. 3.10-10) lists the single event or Lmax noise level (Lmax noise level of 91 dBA at 50 feet from a single passing truck). This noise level is adjusted in Table 3.10-5 for distance to predict the noise level from a single passing truck at the closest receptor to each facility site (worst-case conditions). This predicted level is then compared to the speech interference criterion at each facility site as well as the applicable noise limit for each site under unmitigated and mitigated conditions.

ORIN-85 CEQA does not specify significance thresholds but, instead, encourages jurisdictions to adopt their own thresholds. The DEIR presents a range of thresholds to characterize the range of effects that can result from vibration.

Although the DEIR (p. 3.10-36) notes that humans can feel vibrations as low as 0.012 inches/second (in/sec), it also notes that no complaints were received in other construction projects when vibration velocities were maintained at much higher vibration levels of 0.10 in/sec or less. Sheet-pile driving or controlled detonation near residences can sometimes exceed 0.10 inches per second without violating the 0.5 inch/second cosmetic damage threshold. Other equipment operations would not likely cause 0.1 inch/second to be exceeded at off-site residential structures. Measure 3.10-3a (DEIR p. 3.10-40) notes that the cosmetic damage threshold is applied. Although Measures 3.10-3a and 3.10-3b would be adequate to reduce potential vibration impacts both from annoyance and cosmetic damage to a less-than-significant level, EBMUD will expand the measure (Measure 3.10-3b, second bullet item) to include notification of adjacent residents about planned pile driving activities, if used, controlled detonation activities currently specified.

ORIN-86 As shown in Table 3.10-5 (DEIR p. 3.10-12), the closest sensitive receptors are residences located 500 feet from the tunnel entry portal. Maximum construction noise levels are predicted for the closest receptors to reflect worst-case conditions. The Wagner Ranch School play fields are at least 530 feet from this shaft, while the classrooms are at least 750 feet from the portal. At these distances, the field and classrooms would be subject to lower noise levels than those listed in Table 3.10-5 for

this entry shaft. This table indicates that mitigated noise levels are expected not to exceed the 70-dBA speech interference criterion. Even if the lower recreational speech interference criterion of 60 dBA were applied to the play fields (see DEIR p. 3.10-8, first paragraph), mitigated noise levels (with noise controls) would still not exceed this threshold (except possibly for impact equipment, which could at times exceed this threshold by 1 dBA). Therefore, the DEIR's significance determination under Alternative 2 would be the same for both residential and school receptors.

Similarly, noise impacts associated with Alternative 2 treatment facilities are also estimated in Table 3.10-5 (DEIR p. 3.10-11) under "Orinda WTP – Alternative 2" at the closest receptors (170 feet away) in order to reflect worst-case conditions. The Wagner Ranch School play fields are located approximately 1,300 feet from the proposed clearwell, (the closest project-level treatment facility under this alternative), while the classrooms are at least 1,500 feet from this facility. Therefore, noise impacts at the school would be less than those listed for this facility in the table.

The only proposed facility that would be located closer to the Wagner Ranch Elementary School, than identified residential receptors to the west and east, would be the potential future clearwell under both Alternatives 1 and 2. The potential noise impacts on the school are evaluated at a program-level on DEIR p. 3.10-51. When and if the clearwell is determined to be necessary, and when a detailed project description has been developed for this facility, a more detailed, project-level noise evaluation would be completed and more specific mitigation measures would be specified.

ORIN-87 Table 3.10-5 (DEIR p. 3.10-14, under Happy Valley Pumping Plant) and the impact discussion on DEIR p. 3.10-25 indicates that the 70-dBA speech interference criterion would be exceeded by 5 to 11 dBA even with implementation of feasible noise controls specified in Measure 3.10-1a. The DEIR also notes that a temporary noise barrier will be required to separate construction activities from the nearest neighbors around the Happy Valley Pumping Plant. Noise reductions of 10 to 15 dB are readily achievable with such barriers. The DEIR states that construction activity noise impacts will be reduced to below the 70-dB speech interference criterion with the use of such a barrier (see Measure 3.10-e, DEIR p. 3.10-33).

ORIN-88 Use of speech interference, not the relative change in ambient noise levels, is an appropriate significance threshold for construction noise since it characterizes the effect of construction on daytime activities. (See **Response ORIN-83** regarding the appropriateness of using speech interference as a significance criterion.) This is further supported by the fact that construction-related noise controls specified by the Orinda Zoning Ordinance (Section 17.39.3) restrict hours and days of construction, and do not specify construction noise limits. Also, the DEIR (p. 3.10-33) notes that although mitigation measures would reduce construction noise levels to meet the speech interference criterion (Table 3.10-5) or applicable noise limits (Table 3.10-6),

mitigated construction noise could still cause occasional disturbance at the closest noise-sensitive receptors.

Measure 3.10-1e (DEIR p. 3.10-33) requires that temporary barrier heights exceed equipment stack heights by 5 to 10 feet to produce the desired effectiveness. With respect to the design of the barrier, good engineering practice for sound barriers requires that the tangent of the angle subtended by the barrier be such that the effective length of the barrier is four times the distance from the barrier to the source to prevent leakage around the edge. This can be achieved either by barrier length or by curving the barrier around the source to achieve an equally effective level of shielding. Therefore, provision of a temporary noise barrier is considered to be feasible at this location.

ORIN-89 For projects where the speech interference criterion could be exceeded even with implementation of feasible noise controls (Measure 3.10-1a), temporary sound barriers are recommended under Measure 3.10-1e for all construction projects with fixed or discrete locations (treatment plant construction zones, reservoirs, pumping plants, etc.). However, since pipeline projects progress linearly and affect different locations on an almost daily basis, erection of temporary sound barriers along the pipeline alignment is not a practical or feasible mitigation. Since pipeline projects result in construction activities continually moving along the alignment and affecting different receptors, duration (time exposure) at a given receptor must be considered when determining impact significance of WTTIP pipeline projects. Given the difference in impact potential at a residence adjacent to a reservoir versus a residence adjacent to a pipeline alignment, construction duration must be a factor when determining significance. Consideration of this factor when assessing the significance of pipeline-related construction impacts is clearly stated in impact discussions under each WTTIP pipeline project (DEIR pp. 3.10-23 to 3.10-30).

The DEIR (p. 3.10-16) states that sensitive receptors are located closer to pipeline-related construction activities than would be the case at other facility sites (as close as 25 feet), and construction noise levels would exceed the speech interference criterion with or without feasible noise controls. However, pipeline construction progresses along an alignment (rather than persisting at one location) so that any given sensitive receptor is typically subject to construction noise for approximately two weeks (not for the entire duration of project construction indicated in Table 3.10-5), followed later by a couple of additional days for paving the trench (at any particular receptor, constructions activities would likely occur within the 25-foot setback for one day of excavation, one day of pipe-laying, and one day of backfilling, backfill compaction and surface restoration). Refer to Figure 2-9 (DEIR p. 2-39) for a description of pipeline construction.

ORIN-90 Impact significance is based on a number of factors: 1) whether noise levels exceed the speech interference criterion; 2) consistency with hourly time limits and noise limits (if applicable) specified by local noise ordinances; and 3) the duration of a

receptor's exposure to construction noise. For pipeline projects, it is these factors *combined* that determine whether a construction noise impact is mitigated to a less-than-significant level. Under all WTTIP pipeline projects where the speech interference criterion is exceeded even with noise controls, the DEIR notes that this potentially significant impact is considered to be adequately reduced by Measures 3.10-1a (noise controls) and 3.10-1b (time limits) due to the short duration of exposure at any particular receptor (approximately two weeks). This statement was made in the pipeline discussion of the Orinda-Lafayette Aqueduct-Alternative 2 project on DEIR p. 3.10-23, but was inadvertently omitted from the Happy Valley Pipeline impact discussion on DEIR p. 3.10-25. Therefore, the text has been added to DEIR p. 3.10-25, paragraph 2 (refer to Section 3.2, Text Revisions, in this Response to Comments document).

This clarification does not change the significance determination of Impact 3.10-1 for the Happy Valley Pipeline.

Also, see **Response ORIN-89** for explanation of why temporary barriers are not considered practical or feasible for the daily progression of pipeline construction. The daily erection, dismantling and relocation a few feet further along the pipeline alignment is not considered reasonable, desirable or necessary given the brief duration of the impact at any given receptor and the potential to increase the overall duration of the project.

Table 3.10-4 (DEIR p. 3.10-10) presents single-event Lmax noise levels associated with pile drivers (i.e., the instantaneous noise level generated when the driver hits the pile). Table 3.10-5 presents a Leq noise level for pile driving activities, which integrates a series of pile driving noise events over a given time period. As indicated in Table 3.10-5, construction noise impacts are evaluated in Leq for all equipment types except for trucks, which applies the Lmax, single event noise level. Truck-related Leq noise impacts are evaluated separately in Table 3.10-7 under Impact 3.10-2.

It also should be noted that jack-and-bore construction does not necessarily require pile driving. Piles could be bored or driven using a vibrating driver. If pile driving is required at a jack-and-bore pit, Measure 3.10-1a (third and fourth bullets, DEIR p. 3.10-30) requires that pile holes be pre-drilled to minimize the duration and noise levels associated with pile driving and that equipment be hydraulically or electrically-powered with mufflers and acoustic shrouds. Given the limited potential need for pile driving at jack-and-bore pits (due to the limited size of these pits) and the limited duration of such noise, these measures are expected to be adequate to reduce potential temporary noise impacts associated with jack-and-bore construction to a less-than-significant level.

ORIN-91 See **Response ORIN-83** regarding appropriateness of using any increase in ambient noise levels as a CEQA significance criterion. Similar to the Happy Valley Pumping Plant, temporary sound barriers (Measure 3.10-1e) will be required at the Donald Pumping Plant/Ardith Reservoir site, since construction would occur within 150 feet of residences. This measure was not required at the Sunnyside Pumping Plant since the current design locates construction at 175 feet or more from the closest residential receptor. Any design changes resulting in construction limits that are 150 feet or less from the closest residential receptor, would require temporary sound barriers (Measure 3.10-1e) to reduce construction noise impacts.

ORIN-92 The DEIR's noise impact assessment is based on weekday and weekend "baseline" noise measurements conducted at two locations near the proposed tunnel entry portal site (see Table 3.10-2, DEIR p. 3.10-6, Sites 1 and 2). Once equipment has been selected, construction staging areas are designated, and sound barrier design, facility design, and facility locations are finalized, baseline noise measurements required in Measure 3.10-1b would be conducted at the closest sensitive receptors. Typically, such measurements are not required and the noise abatement program is developed based on baseline measurements collected as part of the EIR. Requirement of additional baseline measurements provides an extra layer of protection for neighbors and ensures that all final design elements are considered in the noise abatement program. Mitigation measures outlined in the DEIR (Measures 3.10-1a through 3.10-1e) are adequate to mitigate construction noise impacts to a less-than-significant level.

Regarding the front loader, EBMUD proposes to limit front loader operation in the tunnel portal vicinities to the daytime hours (not after 6 p.m.) as stated on page 3.10-21, second paragraph of the DEIR and reiterated in Measure 3.10-1d, fourth bullet (DEIR p. 3.10-32). While this will be incorporated into contract specifications, the EIR acknowledges (as reflected in Measure 3.10-1d) that there may be special situations or emergencies where operation of the front loader after 6 p.m. becomes necessary for safety reasons; otherwise, tunnel muck would normally be stockpiled during the night and loaded out the next day.

ORIN-93 The recommendation to locate vents or openings away from the closest residential receptors is based on noise measurement data collected at other enclosed pumping plants, which indicated a 20-dB difference between the side of the pump enclosure with no vents versus the side of the enclosure with the vent or opening (see Table 3.10-8, footnote a, DEIR p. 3.10-42). Measure 3.10-4 requires that equipment used in WTTIP facilities not cause ambient noise levels to exceed the applicable nighttime noise limits specified by local ordinances and listed in Table 3.10-8 for each facility site (measurable decibel limits). Since these noise limits are specified in Measure 3.10-4, the EIR's Mitigation Monitoring and Reporting Program (required under CEQA) will ensure that this mitigation measure is implemented properly and that these limits are not exceeded at each pumping plant.

Please also refer to Section 2.1.3, Master Response on EBMUD Obligations to Comply with Local Ordinances and Obtain Local Agency Approvals for further response to the issues raised by this comment.

ORIN-94 Program-level improvements cited and analyzed in the DEIR would be subject to additional CEQA environmental review if and when they are determined to be necessary. Please also refer to Section 2.1.1, Master Response on Program- and Project-Level Distinctions, of this Response to Comments document.

ORIN-95 A 1,000 gallon gasoline underground storage tank was removed from the northern portion of the Orinda WTP in 1998, and gasoline, benzene, toluene, ethylbenzene, and xylenes, and methyl tert-butyl ether were not detected in confirmation samples collected from the tank excavation at the time of removal. The reason for the listing of the Orinda WTP in the Cortese database is not certain.

There is a low risk of encountering contamination in the area of planned construction at the Orinda WTP. If contamination were identified during construction, any necessary follow-up actions would be conducted under the oversight of the DTSC in accordance with a voluntary cleanup agreement (see comments DTSC-1 and DTSC-3 regarding DTSC oversight and applicability of the voluntary cleanup agreement). Furthermore, the construction contractor would prepare and implement a site health and safety plan, a materials disposal plan, and a water control and disposal plan in accordance with Section 01125 of the EBMUD construction specifications (described on DEIR p. 3.11-21) to ensure that contaminated materials are identified and handled in a safe and appropriate manner. Completion of these activities under the oversight of the DTSC and in accordance with Section 01125 of the EBMUD construction specifications would ensure that impacts related to handling of contaminated soil and groundwater, if present, are less than significant.

ORIN-96 Impacts related to potential contaminants in soil and groundwater will be less than significant with oversight by the DTSC and preparation and implementation of appropriate plans in accordance with Section 01125 of the EBMUD construction specifications. (See **Response DTSC-2** and the DTSC letter as a whole which notes that the CEQA documentation "adequately addresses any remediation of hazardous substance releases that may be necessary.")

ORIN-97 See **Responses ORIN-95** and **ORIN-96** regarding how impacts related to contaminants in soil and groundwater will be less than significant with oversight by the DTSC and preparation and implementation of appropriate plans in accordance with Section 01125 of the EBMUD construction specifications.

As discussed in Impact 3.11-3, impacts related to potentially gassy conditions in the tunnel would be less than significant with compliance with the Tunnel Safety Orders which specify requirements for the monitoring of explosive vapors, ventilation, and the restriction of potential ignition sources in tunnels.

Impacts related to the types and placement of ventilation equipment for the tunneling project are evaluated in Section 3.10, Noise and Vibration. As required by Measure 3.10-1d, the contractor would be required to 1) retain an acoustical engineer to design sound-abatement measures to meet local ordinance limits, including design specifications for a sound barrier and the specific ventilation fan to be used at tunnel portals; and 2) use quiet tunnel ventilation fans directed away from sensitive receptors. The fans must meet noise ordinance limits; additional measures could be employed as necessary to meet these limits. Measure 3.10-1e also requires construction of a sound barrier where sensitive receptors are located within 150 feet of a construction site. With implementation of these noise control measures, the use of appropriate equipment, implementation of noise control measures, and compliance with noise ordinance limits, noise impacts related to ventilation fans would be less than significant, regardless of the placement or type of equipment used.

The project schedule has been established with the assumption that conditions in the tunnel will be gassy and that the tunneling project will comply with the tunnel safety orders; therefore gassy conditions in the tunnel should not cause schedule delays or excessive work stoppages.

ORIN-98 EBMUD will coordinate with the Orinda Fire Department during implementation of the projects in its jurisdiction. Please also refer to Section 2.1.3, Master Response on EBMUD Obligations to Comply with Local Ordinances and Obtain Local Agency Approvals for further detail regarding the issues raised by this comment and EBMUD coordination with local agencies.

ORIN-99 The environmental impacts associated with increases in demand for energy are discussed in the DEIR as explained below:

Need for Improvements at PG&E Substations

As described on DEIR pp. 3.12-17 and 3.12-18, PG&E has indicated that additional electric distribution facilities (new substation bank and circuit) could be required by 2014 at the Lakewood circuit due to increased electricity use at the Lafayette WTP (Alternative 1) or at the Sobrante 1103 circuit due to increased demand at Orinda WTP (Alternative 2). The WTPs would not be the only proposed future electrical loads on PG&E's circuits; rather, they would form part of that load. PG& E's evaluation (Chan, 2006) is, in fact, based on a horizon year of 2011; construction of the Lafayette WTP expansion (Alternative 1) would start in 2012. As part of their planning process, PG&E will update their electric load forecasts before 2012 so the forecast electrical loads for these circuits, and therefore the facility improvements needed to meet forecast increases, will undoubtedly change.

PG&E's planning process will involve conducting load studies to anticipate future load growth, meeting with local authorities regarding land use issues, and obtaining any local permits required for construction and operation of the new substation.

PG&E is required to obtain authorization from the California Public Utilities Commission (CPUC) for a project (as defined by CEQA) involving expansion of a substation pursuant to CPUC General Order 131-D. PG&E would also be required to submit an application to the CPUC including a Proponent's Environmental Assessment. As the lead agency for PG&E's project, the CPUC would then carry out the CEQA review for the project.

Detailed review of the substation bank and circuit, and its impacts, and identification of potential mitigation measures are not possible at this stage, as the details and facts of the proposed substation will not be known until the PG&E planning process begins. The DEIR includes an analysis of the impacts of increasing generation to the extent possible, but determination of site-specific impacts and proposed mitigations would be speculative since neither the site nor the project details are known. (See CEQA Guidelines Section 15145.) As noted above, any necessary environmental documentation on the substation implementation would be done as part of the required CPUC process on approval of the substation.

Increased Emissions From Power Generation

Contrary to the comment's assertion, the DEIR addresses increased emissions from power plants in the Air Quality section under Impact 3.9-6: "Secondary Emissions at power plants due to the generation of electricity to operate pumps and other facilities...." DEIR p. 3.9-33.

ORIN-100 The comment states that the DEIR's claims regarding "EBMUD's Renewable Energy Facilitation Plan, along with public utilities' efforts to achieve a certain renewable energy portfolio, are not presented in sufficient detail to support any conclusion regarding the potential value as mitigation measures for this particular project." The Renewable Energy Facilitation Plan was commissioned by EBMUD in 2002 to plan for the district's role in renewable energy use and is not considered a mitigation measure in the DEIR. The significance criterion used in the DEIR states that if an action were to "substantially interfere with or change the demand for utilities" (DEIR p. 3.12-11) then it would be considered significant.

As noted in the DEIR, EBMUD reduces its peak energy demand and costs by "turning off distribution system pumping plants during peak energy time of use, from noon to 6:00 p.m." (DEIR p. 2-47). On a typical summer weekday, the District as a whole is able to shift 10-15 Megawatts of load from the peak-period. This shifting of the pumping plant load to off-peak hours reduces peak load on the electric distribution system, reducing Independent System Operator (ISO) power shortage emergencies in the PG&E service area and decreasing the incidence of rolling blackouts. In addition, any significant incremental shifting of load from on-peak periods to the off-peak supports the best use of the existing energy infrastructure.

The comment further states that the descriptions of renewable energy are misleading and requests definition of renewable energy.

The EBMUD Renewable Energy Facilitation Plan identifies renewable energy to be electricity generated from renewable resources that are replenished, including the sun, wind, water, biomass, and geothermal (the earth's heat). Renewable technologies include photovoltaics, wind turbines, small hydroelectric dams, biomass and biogas, and geothermal (ICF Consulting, 2003). For more details see DEIR p. 3.12-18. PG&E identifies a similar list of renewable energy sources: biomass & waste, geothermal, small hydrological dams, solar, and wind (PG&E, 2002).

The PG&E figures cited are based on publicly distributed announcements that state that 30% of the customer load is supplied by renewable resources: 18% from large hydroelectric facilities and 12% from smaller renewable resources that qualify under the California's Renewable Portfolio Standard (RPS) Program.

The commenter correctly notes that the DEIR indicates that electricity demand under Alternative 2 could increase by more than 6,000 kilowatts (or 6 megawatts) based on estimates provided by PG&E. Alternative 1, the Preferred Alternative, would increase electricity demand by much less in PG&E's estimation. It should be noted that PG&E's estimates are conservative and based on maximum theoretical load. In addition, those estimates also do not recognize the likely incremental nature of the increased electricity demand. In other words, under Alternative 1 for example, some of the estimated increased demand at the Orinda WTP would be offset by the demand eliminated by closing the Lafayette WTP.

Nevertheless, the little more than 2.3 megawatt increase for Alternative 1 and 6.3 megawatt increase for Alternative 2 are relatively small and will not result in significant secondary impacts, particularly in light of the District's ability to shift peak loads and its commitment to increasing use of renewable energy technologies.

ORIN-101 In response to this comment and the statement that measures should be more explicit in providing quantifiable and enforceable bases for determination that impacts will be less than significant, Measures 3.12-4a and 3.12-4b have been revised (refer to Section 3.2, Text Revisions, in this Response to Comments document).

These changes do not alter the EIR's conclusions regarding impact significance.

ORIN-102 This comment raises questions about the basis of the projected average day demand, the relationship between average day demand and maximum day demand, and the appropriate projection to be considered in the growth inducement analysis. The DEIR analyzes the project's growth inducement potential with reference to the projected average day demand which the project has been designed to accommodate, as the comment states. The DEIR does not itself project the average daily demand. The projected average day demand discussed in Chapter 4 was developed by EBMUD in

background studies that provide the basis for the WTTIP, including the *Districtwide Update of Water Demand Projections* Study (Demand Study) (EBMUD and Montgomery Watson, 2000) and subsequent pressure zone studies. Chapter 4 (DEIR pp. 4-4 through 4-11) describes EBMUD's land use unit demand (LUD) approach to developing the water demand projections based on predicted development over the planning period of approved land uses. The projections that were developed include adjustments to account for water conservation and recycling. Annual demands for the future years in the planning period were forecasted for each pressure zone. The average day demand was calculated by dividing the annual demand for each year by 365 (as noted in Chapter 4).

Maximum day demand for each pressure zone was calculated by applying a "peaking factor" to the average day demand, based on peak demand data from the respective pressure zone. The peaking factor is the ratio of maximum day demand to the average day demand calculated using the following formula:

> Gross Maximum Day Demand / Gross Average Day Demand = Demand Study Peaking Factor[4]

The maximum day demand was obtained from the District's Operations Network System Capacity Improvements Database. The maximum day demand measures actual maximum usage in a pressure zone, including unaccounted-for water, and represents the highest 24-hour demand occurring in a specified calendar year. The Demand Study calculated maximum day demand for a particular pressure zone by multiplying the pressure zone's projected average day demand by the peaking factor for that particular pressure zone (EBMUD and Montgomery Watson, 2000).

Engineering standard practices specify that facilities be sized to meet maximum day (or peak) demand (EBMUD and Montgomery Watson, 2000). The District criteria for sizing facilities include industry standards and regulatory requirements and recommendations.

The average daily demand that could be supported by a system designed for a maximum-day capacity is the average daily demand, rather than the maximum demand, unless actual demand patterns were to change drastically (as postulated below) to reduce the difference between average and peak demand. In the Lamorinda area, the land uses are primarily residential. The maximum day water demand for residences in this area occurs in summer and is directly related to landscape irrigation. The system must be designed to meet that maximum day demand, taking into consideration a host of other factors (such as time of use for pumps, fireflow requirements, and system losses). Based on an analysis of demand for the District's

[4] Gross demand includes unaccounted-for water. As stated in DEIR Chapter 4 (footnote 6) unaccounted-for water is the difference between the total water produced at the water treatment plants and the total water consumption billed, and includes leaks in the distribution system, water treatment plant process uses, meter errors, unmetered construction uses, firefighting, and hydrant flushing.

East of Hills Area over three years (1995-1997), demand peaks in summer and decreases in winter. Although a system capacity designed to meet the maximum day demand could operate at the maximum day capacity for extended periods, operation at this level is not sustainable on a year-round basis. The project is not capable of supporting greater development because growth beyond the level reflected in the projected average day demand would simply result in higher peak demand. That is, peak demand would not flatten across the annual demand bell curve and to accommodate such additional growth additional capacity would be needed.

Only with a dramatic change in demand patterns would the maximum-day-demand based system capacity accommodate more people than projected and assumed in the growth inducement analysis. For example, if all residences in Orinda, Lafayette, Moraga and Walnut Creek replaced landscaping with hardscape (i.e., pavement or structures), then the difference between the maximum and average day demands would decrease and more residents could be served. This is not expected, however, and the result of this is uncertain, because either more people could be served or the WTTIP could be revised to eliminate many of its projects. Nonetheless, nothing in the land use plans of jurisdictions in the Walnut Creek/Lamorinda area supports speculation about such drastic land use changes. While the District has programs to encourage conservation and other demand reduction methods, the projections already assume that these conservation and recycling programs are going to be fully implemented (see Table 4-1, DEIR p. 4-6).

Therefore, as the above discussion indicates, the forecasted average day demand referenced in the growth inducement analysis – not the maximum day demand – is the appropriate level of demand against which to assess the level of growth that would be supported in the project area.

ORIN-103 The projections of local general plans provide a central point of comparison with the WTTIP's proposed capacity improvements in the growth inducement analysis. (See, for example, "Local Planning Agency Projections" ([DEIR p. 4-13 et seq.] and Table 4-5.) The analysis also discusses ABAG projections as another point of information and comparison, as they reflect the expectations for growth in the area of the regional planning agency. In addition, because ABAG projections extend to 2030, the WTTIP's planning horizon, a general comparison of rates of growth over the planning period reflected in ABAG projections is presented. A similar comparison with general plan projections is not possible because of the differences in planning horizons reflected in the various general plans and the WTTIP. For this reason, an average annual growth rate was calculated based on the projections in the general plans to provide a means of comparison. ABAG projections are presented for reference, with the general plan and WTTIP information.

The analysis presented in Chapter 4 indicates that the demand projections developed by the WTTIP for the Walnut Creek/Lamorinda area are consistent with growth anticipated in the local general plans. (As discussed in Chapter 4 and noted in this

comment, EBMUD's land-use based approach to projecting demand is intended to ensure consistency between the water demand projections and the approved growth in the service area.) The impacts of that planned growth have already been evaluated, and measures to reduce or eliminate those impacts have been identified by the respective cities and Contra Costa County in the EIRs and Mitigated Negative Declarations prepared for their general plans and general plan elements. The growth inducement analysis therefore appropriately refers to the impacts and mitigation measures identified by the Cities and County themselves, in identifying the effects of growth that would, in part, be supported by the WTTIP.

ORIN-104 Section 5.2 of the DEIR presents the collective impacts of all project-level and program-level projects included in the WTTIP. This collective impact discussion provides a synthesis of impacts described in DEIR Chapter 3 (Volume 2) and indicates the potential for overlapping impacts or synergistic effects from multiple projects within the overall program. The section is not intended to repeat the project impacts previously analyzed and described in DEIR Chapter 3.

The collective impacts are examined by environmental resource topic, and the potential for overlapping impacts or synergistic effects depends on the geographic scope.

As explained in Section 5.2 of the DEIR, for many resource areas (including land use, planning, visual, geology, cultural resources, operational noise, and hazardous materials), the environmental impacts are site specific and limited to the immediate vicinity at individual project sites, with no potential for overlapping effect or synergistic effects. In these cases, the environmental effects of the WTTIP as a whole, or the collective impact, is the same as all of the project-level and program-level impacts described in Chapter 3 and is not repeated. However, as described in Section 5.2, there could be potential for overlap or synergistic impacts in the areas of recreation, water quality, biological resources, traffic, air quality, construction noise, wildland fire, and public services. These impacts are discussed and analyzed for the potential for the WTTIP projects, with mitigation, to determine whether they could result in a cumulatively considerable impact. In these cases, it was determined that the individual mitigation measures for particular facilities, coupled with the District's ongoing coordination and scheduling of overall WTTIP implementation activities, were deemed sufficient to reduce the potential collective impacts of the WTTIP project as a whole to less-than-significant levels, and no additional mitigation measures would be required.

ORIN-105 As described under Impact 3.9-2 (DEIR p. 3.9-25), exposure of sensitive receptors (homes, schools, playgrounds, etc.) to diesel exhaust particulates along haul routes was analyzed. However, because of the variability of actual truck emissions and the presence of people, it is not feasible to prepare an accurate impact assessment for exposure for all WTTIP project components, and thus a screening level approach was used with 600 one-way truck trips as a threshold. The analysis determined that

individual projects as well as the WTTIP as a whole would be unlikely to exceed this threshold, particularly when projects were occurring on the same haul route and within the same time frame. Nevertheless, diesel exhaust control measures would be required under Measure 3.9-1c (DEIR pp. 3.9-24 – 3.9-25). In addition, as described in **Response ORIN-82**, EBMUD would consider requiring contractors to use soot filters on construction equipment exhaust for WTTIP projects where diesel equipment would operate in proximity to sensitive receptors. This would substantially reduce the diesel exhaust emissions and any associated potentially adverse temporary health impacts.

ORIN-106 As described on DEIR p. 5-11, the collective impact analysis identifies the potential for increased fire risk in Orinda, particularly where WTTIP projects are in areas of wildland fire risk and share a major access route. Individual project-level mitigation would require specific fire protection restrictions and precautions for these projects. In addition, Measure 3.8-5 will require contractors to reduce access impacts, and Measure 3.12-1e will require notification to local fire departments. The District will conduct ongoing coordination and scheduling of WTTIP implementation activities in order to minimize disruption to local communities. When final WTTIP construction schedules are developed, the District will maintain ongoing coordination and notification with local agencies during construction in these jurisdictions, including coordination and notification of local fire services. Please also refer to Section 2.1.3, Master Response on EBMUD Obligations to Comply with Local Ordinances and Obtain Local Agency Approvals for further response to the issues raised by this comment.

ORIN-107 Section 5.2.11 of the DEIR describes the potential, collective energy impact of the WTTIP as a whole. As indicated in Impact 3.12-2 (DEIR p. 3.12-17), the District is pursuing strategies to increase use of renewable energy technologies within its service territories, installing a solar photovoltaic system at the Sobrante WTP, and considering purchase of renewable energy from offsite facilities. Therefore, it can be expected that renewable energy resources would provide a significant portion of the increased energy demand. The nature of the specific need for construction of additional electricity distribution facilities cannot be determined at this time, but the DEIR has predicted that the long-term increase in energy demand would not be significant. Refer also to **Responses ORIN-78** and **ORIN-99**. The indirect environmental effect associated with overall implementation of the WTTIP is discussed under Impact G-1, secondary effects of planned growth, and under Impact 3.9-6, secondary emissions at power plants.

ORIN-108 As discussed in Section 5.2.11 of the DEIR, the estimated range of total estimated solid waste that would be generated by the sum of all WTTIP construction activities is from 230,000 to 376,000 cubic yards. In the WTTIP vicinity, active landfills include Keller Canyon Landfill and Altamont Landfill with 68,279,670 and 124,400,000 cubic yards remaining estimated capacity, respectively (California Integrated Waste Management Board, website www.ciwimb.ca.gov/Profiles/county/,

2006). The maximum estimated volume solid waste that would be generated by the WTTIP as a whole would be less than 0.2% of the remaining capacity of these two landfills alone, and there are numerous other active landfills in Contra Costa and Alameda Counties that could also be used such that the impact on the capacity of these two landfills would be even less. Furthermore, implementation of Measures 3.12-4a and 3.12-4b would encourage contractors to recycle and reuse materials and reduce solid waste disposal requirements to the extent feasible. Therefore, the collective impact of the WTTIP on solid waste and landfill capacity is considered less than significant.

The fifth paragraph in Section 5.2.11 of the DEIR has been revised (refer to Section 3.2, Text Revisions, in this Response to Comments document).

ORIN-109 Table 5-1 presents a list of over 150 past, present and reasonably foreseeable future projects that were deemed to have potential impacts that could compound or interrelate with impacts identified for the WTTIP. It includes past projects that were completed as far back as 2001 as well as future projects planned as far ahead as 2016; there are also numerous projects with unknown construction schedules. This list provides a comprehensive and adequate representation of the range and extent of other projects in the WTTIP vicinity that could contribute to cumulative impacts.

Section 5.3 of the DEIR focuses on describing the potential contribution of the WTTIP to the overall cumulative impacts associated with the 150+ projects listed in Table 5-1. The section does not attempt to analyze or summarize the specific environmental impacts associated with the 150+ cumulative projects, which would indeed be extensive and far-reaching, since much of that information is unknown at this time and would be speculative to present. Instead, the section provides an overview of the scope and type of impact that could occur under each resource area based only on a very generalized description of each cumulative project and whether the impacts identified for the WTTIP could compound or interrelate with similar impacts associated with any of the 150+ cumulative projects.

In most cases, the potential for the WTTIP to compound or interrelate with impacts from any of the 150+ cumulative projects would depend on whether the WTTIP sites were in proximity to any of the cumulative projects' locations (or haul routes) and if the WTTIP construction schedule would overlap with or extend any of the cumulative projects' schedules. This is because in most cases, the WTTIP impacts are associated with the construction phase of the projects, particularly in the impact areas of traffic, air quality, noise/vibration, hazards, and services/utilities. This analysis identifies the potential for impacts to be prolonged, exacerbated or intensified as result of the combination of the WTTIP and other projects. In the case of long-term impacts, such as visual, geology, water quality, biological resources and cultural resources, the cumulative analysis examined a broader scope of potential impact, as defined under each resource area.

The cumulative analysis for each resource area determined whether the proposed program's incremental contribution would be considered cumulatively considerable and if so, whether the incremental impact would be adequately mitigated by identified mitigation measures. In all cases, either the program's incremental impact was not determined to be cumulatively considerable or the mitigation measures previously identified for the individual WTTIP projects were determined to adequately reduce the incremental impact to levels that were not cumulative considerable. This analysis and approach is consistent with CEQA Guidelines Section 15130.

ORIN-110 It is a reasonable assumption that all projects listed in the cumulative impacts analysis would be required to comply with applicable laws and regulations, including CEQA, and it would be speculative to assume otherwise. While the other projects could be adopted with statements of overriding considerations, they would still have to comply with applicable laws and regulations. In the case of impacts on water quality, air quality and biological resources, there are numerous laws and regulations designed to protect these resources, and these laws were developed in consideration of a comprehensive application to a wide range of projects and situations. In the case of water quality, applicable water quality regulations have been developed on a regional basis, as administered in the WTTIP study area by the California Regional Water Quality Control Board, such that applicable regulations (e.g., NPDES permit requirements) are intended to protect entire watersheds within the region and account for cumulative effects of activities within the region; compliance with these regulations by definition would be consistent with a regional approach to mitigation. Similarly, air quality regulations, as administered in the WTTIP study area by the Bay Area Air Quality Management District, are based on protection of entire air basins, not on isolated project locations. Regulation of biological resources considers species and habitat as a whole and compliance with applicable permits and regulations would in large part provide the appropriate level of protection. By preparing an EIR that encompasses all the WTTIP projects, the District is in effect notifying the resource agencies of the range and extent of potential impacts of the WTTIP project elements as a whole, and is conducting an environmental analysis that seeks to consider this range. This will allow subsequent permit requirements to account for the incremental contribution of the WTTIP to cumulative impacts to the affected resource and ensure individual project mitigation.

Refer to **Response ORIN-109** which describes the basis for determining that the WTTIP's cumulative contribution would be less than significant. The DEIR has analyzed the impacts of the WTTIP projects in combination with other projects, and the determination that the impacts will not be cumulatively considerable is not based solely on the determination that the projects will be individually mitigated to a less-than-significant level. A number of factors, including the nature of the projects and nature of the impacts, have been considered.

ORIN-111 Section 5.4.6 of the DEIR analyzes the potential for cultural resources impacts of the WTTIP to compound or interrelate with cumulative impacts associated with projects listed on Table 5-1 within the context of the two affected counties. The analysis determines that the incremental impacts of the WTTIP would not be cumulatively considerable, with implementation of Measures 3.7-1 to 3.7-3. This would be true regardless of the outcome of surveys along the San Pablo pipeline alignment, since Measures 3.7-1 and 3.7-2 provide for contingencies in the event of the discovery of an unknown resource. The discussion is not intended to analyze or mitigate the cumulative impacts on cultural resources of all the cumulative projects.

As described on page 5-38, the District has initiated discussion with Moraga, Orinda, Walnut Creek, Lafayette, Oakland, and Contra Costa County, as well as with other utility districts and agencies regarding the coordination of WTTIP project construction with other planned and proposed projects in the WTTIP study area. As project development continues, the District would continue to conduct ongoing coordination throughout the design, pre-construction, construction, post-construction, and operation stages to help minimize disruption to the local communities. In order to provide further assurance of and commitment to ongoing coordination with other jurisdictions' projects, Measure C-7 has been added to the EIR (specifically in regard to Impacts C-7 and C-9). The new mitigation measure will commit the District to providing regular, ongoing notification and communication (approximately every six to twelve months or more often if needed) with local jurisdictions with regard to the status, schedule and location of WTTIP projects and associated haul routes and any other District projects within that jurisdiction).

See **Response ORIN-108** regarding cumulative impacts on solid waste disposal.

ORIN-112 The DEIR acknowledges the potential for significant cumulative traffic impacts to occur, indicates that EBMUD is committed to coordinating with other agencies to minimize multiple disruptions (see also the new mitigation measure C-7 in Chapter 3 of this document), and also indicates a means by which the City of Orinda, through the encroachment permit process, can further coordination of multiple projects.

Regarding Miner Road, the DEIR (in Table 5-1) identifies the utility undergrounding and Central Contra Costa Sanitary District (CCCSD) projects, both of which would overlap spatially, but not temporally, with the Happy Valley Pumping Plant and Pipeline project. The utility undergrounding and CCCSD projects are currently scheduled to be completed prior to construction of the Happy Valley Pumping Plant and Pipeline project. CCCSD is planning to construct the Miner Road trunk sewer line project from April to December 2008. EBMUD would construct the Happy Valley Pumping Plant and Pipeline project beginning in 2011. The major traffic impacts associated with the Happy Valley Pumping Plant and Pipeline are from pipeline construction, which is projected to last 18 weeks (the 1-2 year construction period is associated with pumping plant and pipeline construction) and would proceed from one street segment to the next at a rate of 80 feet per day. Coordination

among the utility agencies could provide opportunities to construct linear projects in Miner Road at the same time (e.g., the utility undergrounding project and the Happy Valley Pipeline) to avoid attenuation of traffic impacts.

ORIN-113 The concern regarding coordination with fire services is acknowledged. Pursuant to Measure 3.8-1, EBMUD will adopt as a condition of project approval the commitment to coordinate with emergency service providers regarding construction activities and procedures during road closures.

See **Response ORIN-106**.

ORIN-114 This comment sets forth CEQA requirements for identifying and analyzing alternatives in an EIR (also summarized on DEIR p. 6-1) and asserts that the DEIR's discussion of alternatives does not meet cited standards.

Except for the final sentence, this comment is a general summary of certain CEQA statutes, regulations, and court decisions. This summary does not take into account all relevant language in the CEQA regulations (including Guidelines section 15126.6) and court rulings that may apply in specific circumstances, including those involving documents such as the WTTIP EIR. Please see **Response ORIN-115**, which is responsive to these assertions.

ORIN-115 The comment asserts that the alternatives analysis does not satisfy the CEQA requirements.

As noted on page 6-1 of the DEIR, CEQA requires an EIR to "describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives." Guidelines § 15126.6(a). However, "[a]n EIR need not consider every conceivable alternative to a project. Rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decision-making and public participation. An EIR is not required to consider alternatives which are infeasible." Guidelines § 15126.6(a).

Overall, EBMUD conducted a comprehensive screening of potential WTTIP alternatives, including alternative sites, and ultimately considered over 60 alternatives. (DEIR, Table 6-1 (pp. 6-3 and 6-4).) The sources of these alternatives included background reports prepared for the WTTIP project, suggestions made in responses to the NOP and at public meetings held for the WTTIP, and the EIR preparers (DEIR p. 6-2). Section 6.10 of the DEIR provides a detailed description of the alternatives screening process and the eliminated alternatives.

Specifically with respect to the Happy Valley Pumping Plant, the primary constraint in identifying feasible alternatives is location (refer to the section entitled "Siting

Constraints" in Section 2.1.4 in this Response to Comments document regarding the need for the Happy Valley Pumping Plant). There are a limited number of potentially suitable locations for a pumping plant in this area, particularly without displacing existing residences. The impacts cited in the comment (road closures, detours, and noise impacts) would occur for either alternative considered in-depth in the EIR and indeed for any other potentially feasible alternative, given the geographic constraints of the project.

ORIN-116 The comment specifically questions the adequacy of the alternatives analysis for the Orinda-Lafayette Aqueduct. Four potential alternatives were examined and eliminated prior to preparation of the draft EIR, including conversion of the existing aqueduct and three alternative alignments. All were determined either to be infeasible or to involve greater environmental impacts. The comment incorrectly states that conversion of the existing Lafayette Aqueduct No. 1 to a eastbound treated water facility was rejected based on ability to meet the project objectives. The alternative was eliminated based on infeasibility: EBMUD would not have sufficient capacity to transmit raw water westbound in dry years. Because of this threshold finding of infeasibility, the environmental impacts of this alternative were not examined in detail. (CEQA Guidelines §15126.6[c].) Given the constraints in the area and the tunnel requirements, this analysis complies with CEQA. (See DEIR, Table 6-1 [p. 6-3], pp. 6-59 to 6-60.)

ORIN-117 The comment states that it is improper to defer geotechnical analysis and to reject alternatives without site-specific geotechnical information.

A substantial amount of information regarding geology and geotechnical conditions is available, from the construction of the two previous tunnels near the proposed alignment of the Orinda-Lafayette Aqueduct, and was utilized by Jacobs Associates in the *Draft Lamorinda Water System Improvements Program, Tunnel Constructability, Cost and Schedule Report* (Jacobs Associates, 2005). Contrary to the comment's assertion that there is no geotechnical analysis available for the Orinda-Lafayette Aqueduct, Lafayette Aqueducts No. 1 and 2 essentially represent two very long borings that are parallel to and near the proposed alignment for the Orinda Lafayette Aqueduct. The engineers and the geologists who worked on Lafayette Aqueducts No. 1 and 2 chose to terminate the tunneled portions of those aqueducts west of the area where El Nido Ranch Road passes beneath Highway 24 at least in part because of the significant overburden in this area.

ORIN-118 The comment questions the adequacy of the alternatives analysis for the water treatment plant (WTP) elements of the WTTIP project. As indicated in DEIR Table 6-1 (p.6-3), twelve alternatives involving the Orinda WTP were considered. Among these twelve, three were retained for evaluation in the DEIR and nine were eliminated based on infeasibility, inability to meet the project's basic objectives, inability to reduce project impacts, and/or inability to meaningfully add to the range of alternatives.

In addition to Alternatives 1 and 2, analyzed in detail in the DEIR, four other potentially feasible alternatives developed by EBMUD were examined but eliminated from further study. (DEIR, § 6.10.1.) These four alternatives included supply from Walnut Creek WTP (Alternative 3), supply from Lafayette and Orinda WTPs (Alternative 4), supply from Lafayette and Walnut Creek WTPs (Alternative 5), and supply from Orinda and Walnut Creek WTPs (Alternative 6). (DEIR pp. 6-44 to 6-52, including Table 6-7.) Alternatives 1 through 6 were then analyzed and compared with one another pursuant to 24 screening criteria based on project objectives, including environmental factors (described at DEIR p. 6-44 and listed in Table 6-9 [p. 6-50]) under five different criteria-weighting scenarios (listed in Table 6-10 [p. 6-51]), which generated rankings amongst the six alternatives (listed in Table 6-11 [p. 6-51]). As shown in Table 6-11, under the four scenarios in which environmental factors were weighted between 20 and 30 percent of the score (scenarios A, B, C, and E), Alternatives 1 and 2 were ranked the top two alternatives. In the fifth scenario (scenario D), in which environmental factors were only weighted at 10 percent, Alternatives 1 and 2 were ranked 1st and 3rd. Given these rankings, EBMUD concluded that Alternatives 1 and 2 were the feasible alternatives that could best meet the project objectives, including minimization of environmental impacts, and therefore excluded Alternatives 3 through 6 from further study and analysis. (DEIR pp. 6-44, 6-49 to 6-52.)

Moreover, EBMUD also considered three other alternatives that were suggested during EIR scoping by this commenter (the City of Orinda) and others, all of which involved relocating or decommissioning the Orinda WTP to minimize project impacts on the City of Orinda. These alternatives (discussed in the DEIR at pp. 6-52 through 6-55), included relocation of the Orinda WTP, which was analyzed with respect to two alternative sites (Alternative A), elimination of transmission of treated water to West of Hills from Orinda WTP (Alternative B), and expansion of Lafayette WTP combined with decommissioning of Orinda WTP (Alternative C). Although the 2003 EBMUD Water Treatment and Transmission Master Plan (WTTMP) concluded that the Orinda WTP is essential to existing and future operations based on water quality, cost, reliability, and operational flexibility, all of which are project objectives, (DEIR, p. 6-53 and Table 6-8), EBMUD conducted an analysis of each of these three alternatives, including both alternative sites for Alternative A, and eventually concluded that none of them merited further study under CEQA, as they were infeasible, unable to meet core project objectives, and did not lessen environmental impacts. (DEIR, pp. 6-52 to 6-55.) Significantly, all of these alternatives would have resulted in a substantially larger construction cost to EBMUD ratepayers (between $1.4 billion and $2.3 billion) than Alternatives 1 or 2 (between $223 million and $268 million, respectively). (DEIR pp. 2-89, 6-54, 6-55.)

Please also refer to Section 2.1.3, Master Response on EBMUD Obligations to Comply with Local Ordinances and Obtain Local Agency Approvals for further response to the issues raised by this comment.

ORIN-119 The comment asserts that the DEIR "omits information that would assist the public and decision-makers in assessing the environmental benefits and costs of various alternatives" and cites an example.

DEIR Chapter 6 provides a summary of the Lamorinda Water Systems Improvements Program Facilities Plan. (See DEIR section 6.10.1 and Table 6.7). The purpose of the Facilities Plan was to identify, analyze and screen alternatives involving the water treatment plants, thereby allowing one or more alternatives to be selected for further development and environmental review. The draft Facilities Plan was also provided to the City of Orinda very early in the process and prior to publication of the DEIR. The nine-page summary of the Facilities Plan in the DEIR presents information to allow the reader to understand (a) the alternatives considered; (b) the screening process used; (c) the results of the screening process; and (d) the reasons certain alternatives were eliminated from further study. Note that DEIR Table 6-11 provides raw scores for each alternative for each weighting scenario. The raw scores are in parentheses next to the ranking of each alternative. Table 6-9 describes the project objectives, the 24 screening criteria, and points associated with each criterion.

The comment states that the DEIR does not explain why the "particular weighting scenarios were chosen or what balance of criteria they were designed to elicit." As stated on DEIR p. 6-44:

> Weighting factors were developed to measure the relative importance of the different categories of project objective: reliability, regulatory and water quality, operations, environment, and economics. The District established five different weighting scenarios to evaluate the sensitivity of the alternative ranking to the weighting scenario, as shown in Table 6-10. In each scenario, different weighting factors were applied to each category.

Table 6-10 (DEIR p.6-51) identifies the specific weighting percentages assigned to each category of objectives for each of the five weighting scenarios. For example, under Weighting Scenario A, Economics (cost) is assigned the highest percentage. Under Weighting Scenario B, Implementation is assigned the highest percentage. Table 6-11 then presents the results of the alternative rankings by weighting scenario.

See **Response ORIN-115** for a general discussion of alternatives.

ORIN-120 The Mokelumne Aqueducts convey water directly from the Pardee Reservoir on the Mokelumne River to the Orinda, Lafayette and Walnut Creek WTPs. Because of the high quality of the Mokelumne source water, these WTPs require less treatment. The treatment process at these WTPs is referred to as in-line filtration. The commenter asserts the DEIR did not explore whether water from the Mokelumne Aqueducts could feasibly be delivered to an alternative treatment plant, which would require only in-line, rather than conventional, filtration.

All newly constructed water treatment plants were assumed to require conventional water treatment processes. This conservative approach maximizes a plant's operational flexibility and reliability under a wide variety of raw water quality conditions. However, construction of an in-line filtration WTP instead of a conventional WTP under Alternative A – WTP Near Briones Dam is potentially feasible since this plant is situated so that it can receive direct supply from the Mokelumne Aqueducts. Construction of an in-line water treatment plant rather than conventional water treatment plant in Alternative A – WTP Near Briones Dam would reduce the cost of the alternative by approximately $350 million. As noted in the DEIR, however, this alternative would require the construction of additional large diameter pipelines from the treatment plant on Bear Creek Road to the Orinda WTP.

Under Alternative A – WTP in Scow Canyon the Moklumne Aqueducts would be discharging into San Pablo Creek which also receives lower quality local runoff. Alternative A – WTP in Scow Canyon requires a conventional water treatment plant because the source water would come from San Pablo Reservoir. An in-line plant at this location would require the construction of a raw water supply transmission system to serve this water treatment plant from the Mokelumne aqueducts. Due to the distant location of Alternative A – WTP in Scow Canyon relative to the termination of the Mokelumne Aqueduct raw water transmission system at the current site of Orinda WTP, the additional cost to extend the raw water supply transmission piping to serve this water treatment plant would be approximately $450 million. Thus, replacing the conventional water treatment plant with an in-line water treatment plant would reduce the cost of the water treatment plant by approximately $350 million. However, the cost savings would be more than offset by the necessary raw water transmission system at a cost of approximately $450 million and the additional environmental impacts. Both of the variations of Alternative A were rejected due to cost and environmental impacts.

Construction of an in-line water treatment plant rather than conventional water treatment plant in Alternative B would reduce the cost of the alternative by approximately $350 million. However, as noted in the DEIR, the new water treatment plant for Alternative B would have to be located at or very near the Claremont Center. The Claremont Center is surrounded by residences and a school. EBMUD could not build a WTP near the Claremont Center without acquiring multiple residential properties, which probably would not be feasible nor prudent. The alternative was rejected due to cost, environmental impacts, and feasibility/implementation concerns.

Although Alternative C would use water from the Mokelumne Aqueducts, the alternative proposes a membrane filtration plant rather than in-line filtration plant due to space limitations. Alternative C would treat Mokelumne Aqueduct water at the Lafayette WTP and then convey treated water to Orinda and the West of Hills area via the existing Lafayette Aqueducts and Claremont Tunnel. This alternative would also require a new aqueduct to convey raw water to and from Briones Reservoir. As

noted in the DEIR, this alternative was rejected due to uncertainties with regard to the feasibility/implementation of the technology for a plant of this size, cost and potential environmental impacts.

Other alternatives for treating water directly from the Mokelumne Aqueducts, including alternative locations, would not be feasible because of land use constraints along the aqueducts and the significantly higher costs and increased environmental impacts associated with a new water treatment plant and the required additional raw water and treated water transmission pipelines and tunnels.

The District's objectives on DEIR p. 2-22 were used to develop and evaluate alternatives in the Lamorinda Water Systems Improvement Program Facilities Plan and the DEIR. In developing and evaluating alternatives the District focused on alternatives that maximize the direct use of the higher quality Mokelumne River Water to meet the District's regulatory and water quality objectives as efficiently as possible. The District also focused on alternatives that maximized the use of the existing configuration of the very large raw water and treated water transmission lines and the water treatment facilities to meet the District's implementation, environmental, and economics objectives.

ORIN-121 For reasons stated throughout this Responses to Comments Document, EBMUD staff believe the DEIR adequately meets CEQA requirements and need not be recirculated.

ORIN-122 See **Response ORIN-39** and **Responses ORIN-123** through **ORIN-128**.

ORIN-123 As described in **Response ORIN-39**, geologic conditions were characterized at each project site using several sources, including published reports and maps, site reconnaissance, and geotechnical investigation reports prepared for existing facilities. These sources are cited throughout the section. The selection and range of geologic sources used are appropriate for the purposes of describing and analyzing geologic and seismic conditions in this EIR.

The description of regional geologic information, as noted by the commenter, is included in the section in accordance with the requirements of CEQA; regional geologic and seismic information is necessary to fully describe the existing conditions. In addition to the regional setting description, as described in **Response ORIN-39,** there is site-specific geotechnical information for each project site. As an example, the DEIR (p. 3.4-28, Impact 3.4-4) addresses the potential impact associated with liquefaction at each project site. The impact analysis discusses the type of subsurface materials and groundwater conditions based on the geotechnical impact assessment performed by AGS, Inc., liquefaction mapping conducted by the Association of Bay Area Governments (ABAG), liquefaction mapping using California Geological Survey (CGS) and US Geological Survey (USGS) sources, and site-specific subsurface data. These sources together were used to determine whether a potentially significant impact could occur.

Many of the projects, such as the improvements to the various water treatment plants, are located on developed properties with a known history of slope and seismic stability. Geologic findings and geotechnical recommendations previously reported for these sites were considered in this EIR and provide adequately detailed information on the underlying geology and slope stability. While the mitigation measures provided in Section 3.4 of the DEIR would still require an updated geotechnical evaluation for the proposed project elements, these previous investigations provide an adequate basis for determining a range of potential geologic and soil hazards.

DEIR Figures 3.4-2 through 3.4-5 depict potential geologic, seismic, and soil hazards at the various sites. These maps were not used as the basis for analysis of impacts but merely to provide the reader a graphical summary of the geologic and seismic hazards at each project site and the distribution of these hazards throughout the project area. To present the information schematically, the scale is appropriately small (approximately 1 inch = 2000 feet) and the potential hazard at each site is clearly indicated by a letter and number code. Because these maps were intended to provide a graphical schematic, the boundaries of the hazard areas are intentionally not defined. The criteria used to determine the particular hazard at each site are described in the text; the hazard rating used on the maps is considered in the assessment of overall impacts.

ORIN-124 **Response ORIN-39** describes the approach to the impact assessment analysis. Each impact discussion, including the projects at the Orinda Water Treatment Plant, includes a project-level analysis (DEIR pp. 3.4-22, 3.4-29, 3.4-32 and 3.4-33). In addition, site-specific data for soil properties (DEIR p. 3.4-3), peak ground acceleration calculations (DEIR p. 3.4-11), and distance to major active faults (DEIR p. 3.4-11) are also considered. Geologic information for the Orinda area was obtained from data compiled by the ABAG, CGS, and the USGS as well as site-specific data that were contained in a previous geotechnical investigation for the Orinda Water Treatment Plant, titled *Orinda Filter Plant Washwater Control Facilities Phase II – Geotechnical Investigation Report*, 1987, as referenced in AGS *Geotechnical Impact Assessment*, 2005. These data were consistent with other resources (ABAG, CGS, USGS) and together provided adequate information on potential geologic impacts for the proposed projects in Orinda.

ORIN-125 Potential discharges of groundwater during construction of the Orinda-Lafayette Aqueduct are discussed on DEIR p. 3.5-33. As noted by the comment, this discharge could contain sediment, traces of hydraulic oil, cement, and metals. Without proper precautions, discharge of this water could cause adverse water quality effects in the receiving water. The groundwater treatment system for this discharge could include sedimentation basins and tertiary treatment to remove oil. However, specific details of the design of the treatment system are not set forth in the DEIR because, as discussed in Impact 3.5-2, the discharge would be subject to NPDES permitting requirements. As discussed in **Response ORIN-42**, the NDPES permit for discharge

of the groundwater would establish discharge limitations and the contractor would be required to conduct self monitoring to demonstrate compliance with permit requirements and to take corrective action should permit limitations be exceeded. Therefore, permit compliance would ensure compliance with water quality regulations as well as the plans, policies, and water quality objectives and criteria of the Basin Plan.

As discussed in Impact 3.5-2, methods for discharge of groundwater would be addressed in a water control and disposal plan submitted to EBMUD and would comply with regulations of the RWQCB, CDFG, county flood control districts, and any other regulatory agency having jurisdiction as specified in Section 01125 of the EBMUD construction specifications. With implementation of these requirements, water quality impacts related to discharge of groundwater during construction of the Orinda-Lafayette Aqueduct would be less than significant.

ORIN-126 As discussed in **Response ORIN-39,** the measures prescribed to mitigate potential impacts of the Orinda-Lafayette Aqueduct are adequate because, as revised in this Response to Comments document, they 1) commit the District to complete the appropriate geotechnical study; 2) establish parameters for the performance standard; 3) are tied to recognized guidelines, where applicable; and 4) provide a range of options to achieve the stated performance standard.

The analysis of the proposed aqueduct was based largely on a tunneling feasibility report (Jacobs Associates, 2005) that considered conditions and tunneling details encountered at the two tunneling projects (existing Lafayette Tunnels No. 1 and 2 located on either side of the proposed Orinda-Lafayette Aqueduct, as well as the BART Tunnel). The geologic information and tunneling data from these completed projects provide adequate data to predict the conditions that could be encountered during construction of the Orinda-Lafayette Aqueduct. Furthermore, the potential geologic and seismic hazards identified as potentially significant impacts, as well as the challenges of tunnel engineering in this region, are inherent in typical tunneling projects and do not present insurmountable engineering difficulties. The prescribed mitigation in conjunction with the knowledge gained during two nearby major tunneling projects is sufficient to analyze potential impacts in this EIR.

ORIN-127 The analysis for the proposed Orinda-Lafayette Aqueduct and the potential for squeezing ground on the project is discussed on DEIR p. 3.4-32. Squeezing ground is a common problem encountered when tunneling in rock. Measure 3.4-5 describes a standard engineering practice that has been used in many tunneling projects to reduce the potential of the squeezing ground conditions to compromise the structural integrity of the tunnel. EBMUD engineers and consultants have expertise in tunneling developed through constructing and upgrading the Claremont Tunnel and tunneling in the Orinda/Lafayette/Berkeley area, coupled with information and lessons learned during the BART tunneling project. With this expertise, conditions and hazards associated with the Orinda-Lafayette Aqueduct tunnel projects (i.e.

squeezing ground, combustible gas, and dense cemented rock) can be readily predicted and strategies to mitigate the hazards can be developed and incorporated into project specifications. The long-standing performance of these tunnels provides ample data for estimating construction methods, challenges, and duration to complete the proposed Orinda-Lafayette Aqueduct. It is unlikely that a site-specific geotechnical investigation (especially an investigation for a linear, deep tunnel project) would yield additional or more applicable information than is available through actual experience with tunneling in the project vicinity. Even with a detailed site-specific investigation, actual conditions encountered may vary from what can be estimated through exploratory borings. Furthermore, the problems related to squeezing ground, combustible gas, and dense cemented rock are common in tunneling and are accounted for in developing engineering approaches and construction schedules during the final design phase of the project.

The potential for encountering combustible gas in the tunnel is discussed on the DEIR p. 3.11-30 in Section 3.11 of the DEIR, Hazards and Hazardous Materials. The construction records for Tunnel No. 1 and No. 2 indicate limited occurrence of gas; nevertheless, EBMUD will be required to adhere to the requirements of the Division of Industrial Safety designed to ensure that potential impacts of combustible gas remain less than significant.

In accordance with industry standards, the tunneling feasibility report prepared by Jacobs Associates included a detailed analysis of anticipated ground behavior and provided rock classifications according to Terzaghi's Rock Mass Classification System for the various formations to be encountered along the proposed aqueduct route. The analysis of proposed tunnel construction by Jacobs Associates indicates that blasting would not be necessary because the anticipated bedrock materials can be excavated with the tunnel-boring machine described on DEIR p. 2-63.

ORIN-128 As described in **Response ORIN-39,** the measures provided in the DEIR are adequate under CEQA to mitigate the potential geologic impacts of the projects, including those in Orinda. The projects in Orinda cannot be accurately compared to a highway grading project, where the work occurred within a single project area and was limited to grading and roadway construction. The DEIR contains an appropriate level of detail and analysis as required by CEQA for the projects described. The mitigation measures have been developed in response to the varying environmental conditions and would result in geologically and seismically stable facilities.

ORIN-129 The High-Rate Sedimentation Unit is a program-level element. The box on DEIR Figures D-OWTP-1 and D-OWTP-2 shows the overall scale and potential location of the facility. If and when that facility is required (due to future water treatment requirements including source water quality considerations), EBMUD will engage in environmental review, develop conceptual design plans, conduct project-level review, and consult with the City of Orinda. The facility will not be located in the right-of-way of Manzanita Drive.

ORIN-130 Measures 3.10-1a through 3.10-e (DEIR pp. 3.10-30 through 3.10-33) present the detailed controls that EBMUD would adopt as conditions of project approval to attenuate noise generated during project construction. As noted in Measure 3.10-1a EBMUD would abide by the daily and hourly restriction in the City's Noise Ordinance "except during critical water service outages or other emergencies and special situations, " the text in Measure 3.10-1b (DEIR p.3.10-31) has been revised to indicate that EBMUD would coordinate with City staff for construction work that needs to occur after 6:00 p.m. and before 7:00 a.m. (refer to Section 3.2, Text Revisions, in this Response to Comments document).

ORIN-131 The offsite parking location for construction workers' vehicles has not yet been selected. EBMUD will notify the City of Orinda when the location is selected. The Orinda WTP is a possible parking location.

ORIN-132 The reviewer is correct in noting that the Orinda-Lafayette Aqueduct tunnel shaft exit would be on East Altarinda Rd near St. Stephens Drive. This location is "near the St. Stephens Drive/El Nido Ranch Road intersection" as noted on p. 3.2-6 of the DEIR. The first sentence of the first paragraph under the Orinda-Lafayette Aqueduct heading on DEIR p. 3.2-6 is revised (refer to Section 3.2, Text Revisions, in this Response to Comments document).

In response to this comment, DEIR p. 3.2-6, paragraph 3 has been revised (refer to Section 3.2, Text Revisions, in this Response to Comments document).

ORIN-133 As stated on page 3.2-14 of the DEIR, the proposed Sunnyside Pumping Plant would be a relatively small, compact facility that would not disrupt or divide the local community. Regarding the commenter's statement about the need to widen Happy Valley Road to provide a left turn lane at the site access, EBMUD understands that the turning lanes are currently under construction.

ORIN-134 Construction along the asphalt trail along the north side of Camino Pablo could occur as a result of program-level elements north of Manzanita Drive, depending on (for example) the alignments of pipelines like the San Pablo Pipeline. Program-level elements require additional, project-specific review under CEQA prior to approval and implementation. As part of that review, EBMUD would evaluate the potential for impacts to the asphalt trail to occur.

Truck traffic from project-level improvements at the Orinda WTP is a concern with regard to pedestrian safety, especially when children are walking to and from the Wagner Ranch Elementary School in the morning and afternoon. The addition of truck traffic at those times would heighten the need for drivers, school personnel, parents, and children to be alert. The last bullet on DEIR p. 3.8-14 (part of Measure 3.8-1) has been revised (refer to Section 3.2, Text Revisions, in this Response to Comments document).

ORIN-135 The exit shaft site is an undeveloped grassy area adjacent and upslope of Highway 24. The visual character of the site is of marginal value because of its size, location, and orientation relative to sensitive viewpoints (views of the site are very limited; the elevation of the site is such that it is not visible from Highway 24). No trees would be removed for shaft construction. With construction of the Orinda-Lafayette Aqueduct (not part of the preferred Alternative 1), a 30-foot diameter concrete slab would replace an equivalent area of the undeveloped grassy area. The net change in visual character at the exit shaft site would not be significant. The concrete slab would be very low profile and would not impede any views. Construction of the exit shaft cover at the site would not generate significant visual impacts.

ORIN-136 Refer to previous response.

ORIN-137 The Setting section of Section 3.5 of the DEIR, Hydrology and Water Quality is organized by watershed to facilitate evaluation of water quality impacts. The referenced text on DEIR p. 3.5-5 describes that portion of the Orinda-Lafayette Aqueduct in the Las Trampas Creek watershed. Water bodies in Orinda are located within the San Pablo Creek watershed and are discussed on DEIR p. 3.5-3.

ORIN-138 See **Response ORIN-133** regarding the suggested roadway improvements on Happy Valley Road associated with the Sunnyside Pumping Plant. Please also refer to Section 2.1.3, Master Response on EBMUD Obligations to Comply with Local Ordinances and Obtain Local Agency Approvals for further response to the issues raised by this comment.

ORIN-139 The corrected name of East Altarinda Drive and the corrected spelling of Ellen Court are acknowledged. See **Response ORIN-132** regarding the location of the exit shaft.

ORIN-140 As shown in Table 3.8-3 (DEIR p. 3.8-8), the project-generated truck trips would have a less-than-significant impact on roadways used to access the work sites for the Orinda WTP, Orinda-Lafayette Aqueduct, and Sunnyside Pumping Plant, and Measure 3.8-7 is not applicable. This impact determination is based on consideration of roadway design (i.e., the projects' impacts to roads designed to handle a mix of vehicle types, including heavy trucks, are expected to be negligible), and project-generated truck trips (see Table 3.8-5, page 3.8-12, and Appendix B, in the DEIR).

ORIN-141 See **Response ORIN-130** regarding the work hours for project construction and the City of Orinda Noise Ordinance. No additional trip generation analysis is needed.

ORIN-142 The corrected name of East Altarinda Drive is acknowledged.

ORIN-143 The corrected name of East Altarinda Drive is acknowledged.

ORIN-144 In response to this and other comments, EBMUD has added measures to Measure 3.8-1 (DEIR p. 3.8-13) to further reduce the impact of road closures. Regarding the need for the Happy Valley Pumping Plant and Pipeline Project, refer to Section 2.1.4 of this Response to Comments document. Regarding the expected duration of construction along Miner Road and Lombardy Lane, refer to **Response ORIN-67**. Regarding construction corridor widths required for pipeline construction, refer to Figure 2-9 (DEIR p.2-38).

ORIN-145 Text is added to the list of project facilities where full onsite accommodation of parking demand would not occur (page 3.8-19 of the DEIR) (refer to Section 3.2, Text Revisions, in this Response to Comments document).

ORIN-146 Note that construction of a clearwell at the ballfield area is a program-level element, requiring additional supplemental, quantitative evaluation of traffic and parking impacts at a project-level. However, the ballfield area itself and adjacent parking lot provide ample staging space for construction of a clearwell at that location.

ORIN-147 Text is added as the fourth sentence in the second paragraph under Impact 3.8-5, page 3.8-20 of the DEIR (refer to Section 3.2, Text Revisions, in this Response to Comments document).

Impact 3.8-5 addresses potential impacts to access to land uses and streets adjacent to pipeline installation. Access for the Wagner Ranch Elementary School on Camino Pablo (where no pipeline would be installed) would not be adversely affected by pipeline construction of project-level elements (refer to **Response ORIN-134**). Section 3.12 of the DEIR, Public Services, also discusses effects on other schools in the vicinity of the project.

ORIN-148 See **Response ORIN-69** regarding the commenter's concern about the project's effects on school bus service on affected roads.

ORIN-149 See **Response ORIN-140** regarding the project's less-than-significant impact on pavement conditions on roadways used to access the Orinda WTP.

ORIN-150 The context of the comment is not clear because Table 3.9-6 (on page 3.9-27 of the Air Quality section) does not contain any reference to Moraga Way, and the commenter does not provide the existing number of trucks per day on Moraga Way (per data collected by the City of Orinda). However, pertaining to the commenter's statement about the effect of project-generated truck trips, as described on DEIR pp. 3.8-22 and 3.8-23 (in Section 3.8, Traffic and Circulation), major arterials such as Moraga Way are designed to handle a mix of vehicle types including heavy trucks, and the project's impact is expected to be negligible.

ORIN-151 As stated on DEIR p. 3.10-31, Measure 3.10-1b states that, "Construction at the WTTIP project sites will be restricted to the hours of operation specified by each

jurisdiction's noise ordinance (as listed in Table 3.10-1, including restrictions provided in footnotes and any other ordinance exceptions and provisions in effect at the time of EIR publication), except during critical water outages or other emergencies and special situations. Any equipment operating beyond these hours will be subject to the day and night noise limits of each jurisdiction (as listed in Table 3.10-1) for various activities in single-family residential zones."

The text in Measure 3.10-1b (DEIR p.3.10-31) has been revised (refer to Section 3.2, Text Revisions, in this Response to Comments document).

ORIN-152 In response to this comment, Table 3.12-3 has been revised (refer to Section 3.2, Text Revisions, in this Response to Comments document).

ORIN-153 The finding of no collective traffic (and traffic-related) impacts on El Nido Ranch Road due to the proposed project is based on the fact that the schedules for construction of the tunnel portion of the Orinda-Lafayette Aqueduct under Alternative 2 and the Sunnyside Pumping Plant would not overlap (as stated on DEIR p. 5-7). The DEIR analyzes the impacts of individual project facilities in Chapter 3.

ORIN-154 This comment refers to the copy of the Regionwide General NPDES Permit for Discharges from Surface Water Treatment Facilities for Potable Supply included as an attachment to the City of Orinda comments. The applicability of this permit is addressed in **Responses ORIN-43**, **ORIN-44**, and **ORIN-51**. Please also refer to Section 2.1.3, Master Response on EBMUD Obligations to Comply with Local Ordinances and Obtain Local Agency Approvals for further response to the issues raised by this comment.

ORIN-155 This comment refers to the copy of the July 15, 2006 article regarding discharges of chloraminated water by EBMUD included as an attachment to the City of Orinda comments. Discharges referred to in this article are discussed in **Response ORIN-51**.

ORIN-156 The text identified is referenced in support of an earlier comment. See **Response ORIN-71**.

ORIN-157 The text identified is referenced in support of an earlier comment. See **Responses ORIN-72**, **ORIN-73**, **ORIN-74**, and **ORIN-76**.

ORIN-158 The text identified is referenced in support of an earlier comment. See **Responses ORIN-80** and **ORIN-81**.

ORIN-159 The text identified is referenced in support of an earlier comment. See **Responses ORIN-80** and **ORIN-81**.

ORIN-160 The text identified is referenced in support of an earlier comment. See **Responses ORIN-80** and **ORIN-81**.

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CITY OF
WALNUT
CREEK

September 18, 2006

Judy Zavadil
East Bay Municipal Utility District
Mail Slot 701
375 Eleventh Street
Oakland, CA 94607-4240

RE: Response to Draft Environmental Impact Report for the East Bay Municipal Utility's District Water Treatment and Transmission Improvements Program

Dear Ms. Zavadil:

Thank you for the opportunity to submit comments on the Draft Environmental Impact Report ("EIR") for the EBMUD Water Treatment and Transmission Improvements Program. While we understand the need for this project, the EIR is seriously deficient, particularly in its lack of analysis of the potential environmental impacts of the New Leland Pressure Zone Reservoir (the "New Reservoir") and changes to the Walnut Creek Water Treatment Plant. Our specific comments are discussed below. WC-1

One general concern is that the EIR shows little sensitivity to the value of open space resources adjacent to the proposed New Leland Pressure Zone Reservoir. The City of Walnut Creek acquired this rapidly diminishing open space to preserve it in its natural state for the protection of natural habitats and the enjoyment of generations to come. Its acquisition occurred as the result of a remarkable grass-roots effort by local citizens in the early 1970's to adopt a ballot measure taxing themselves to raise funds for the acquisition of this and other open space. Many neighboring residents supported the tax and/or purchased their homes with the knowledge that the area would remain publicly-owned open space for all time. Many others who don't live nearby nevertheless supported the tax in order to see the open space preserved. Unfortunately, the EIR shows no appreciation for the importance of the open space, instead treating it as though it is an unused resource that can casually be used for construction activities without serious consequence. WC-2

Regarding another general concern, please explain why changes are needed at the Walnut Creek Water Treatment Plant in light of the recent expansion of that Plant. The EIR for the recent expansion stated that it was needed to resolve existing deficiencies and to provide greater capacity to serve the Walnut Creek area. EBMUD emphasized at the time that this was the primary reason for the project, rejecting suggestions that the reason WC-3

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for the project was to provide capacity to serve the Dougherty Valley/Tassajara Valley/San Ramon Valley areas. However, the current EIR states that the purpose of the project is in part to address existing capacity deficiencies in the Walnut Creek area (see e.g. p. 2-14.). Please explain this inconsistency. WC-3

The previous project also included installation of a new pipeline within Lacassie Blvd. North California Blvd. and Main St. in Walnut Creek, among other locations. The current project proposes to install another pipeline and/or valves within the same streets. Please explain why the previous work was not sufficient. Also, the EIR indicates that when this work is finished, the roadways will be re-graded and resurfaced (p. 2-77). Please explain what sections of these streets will be regraded and resurfaced. WC-4

The EIR improperly analyzes the New Leland Pressure Zone Reservoir as a "program-level improvement" without analyzing the specific environmental impacts of this element of the project and without providing specific mitigation measures. A program EIR is appropriate "in connection with issuance of rules, regulations, plans, or other general criteria to govern the conduct of a continuing program ..." (CEQA Guidelines section 15168(a)(3).) The proposed New Leland Pressure Zone Reservoir does not fit within this definition of a program, as opposed to a project. The proposal is not to establish general criteria for a new reservoir; the proposal is to construct a very specific reservoir in a very specific location, with no alternatives listed. Accordingly, the New Reservoir must be analyzed as a project-level improvement. WC-5

Even if the New Reservoir could properly be considered a program rather than a project, CEQA does not permit an agency to defer detailed environmental analysis simply by labeling proposals a "program". The EIR repeatedly indicates that project elements labeled "program-level improvements" are being analyzed at a lower level of detail than are the project-level improvements. This is not permitted under CEQA. "Calling [a proposal] a 'program' does not relieve [an agency] from having to address the significant effects of that project." Stanislaus Natural Heritage Project v. County of Stanislaus (1996) 48 Cal.App.4th 182. Accordingly, the EIR should be revised to include a detailed analysis of the proposed New Reservoir. WC-6

The EIR also analyzes certain "program-level improvements" at the Walnut Creek Water Treatment Plant at a very general "program level". For the same reasons discussed above, the EIR should be revised to include a detailed analysis of all proposed improvements at the Walnut Creek Water Treatment Plant. WC-7

The EIR lists four options for construction traffic access to the New Reservoir site. (See p. 2-86.) Please describe in detail the construction needed to provide each of these access routes, including width, surface materials, retaining walls, grading, fencing and post-project remediation. Also, please identify the environmentally superior alternative as required by CEQA. WC-8

The EIR should also discuss whether Options A and B are feasible in terms of the District's ability to obtain authority from Walnut Creek to pursue these options. While the City Council has not yet reviewed these options, City staff is strongly opposed to both of these options. Option A would require use of Rudgear Drive by many construction trucks. Rudgear Drive, with its pavement, steep slopes, and sharp curves, simply is not engineered to handle this type of traffic. Due to weight limits, this use of Rudgear Drive would require approval from the City's Engineering Division, which is unlikely given staff's position. Option B would require traveling an extensive distance through Sugarloaf Ridge Open Space, which would require permission from the City's Open Space Division. Again, it is unlikely that the City would grant this permission. It is also unlikely that the District would be able to acquire access rights through eminent domain, as it is likely that a court would find that the City's use is a more necessary use, particularly given that the District has other options. WC-9

The EIR determines that the New Reservoir would not have any significant land use impacts. (See p. 3.2-20 – 21.) However, construction activities occurring within 60 feet of existing residential areas would certainly disrupt the existing community, as would routing construction traffic through the existing community and over three residential properties as proposed in Option A. The project would also potentially disrupt grazing uses of Sugarloaf Open Space. While construction is temporary, that does not make the construction-related impacts insignificant, particularly if Options B or C are used for construction access. The EIR also suggests that impacts on recreational use of Sugarloaf Open Space are insignificant because recreation users can go elsewhere and it is unlikely that those other areas will become overcrowded. This is a nonsensical justification, not unlike saying that a chemical plant spewing out deadly chemicals doesn't have a significant impact on neighbors because they can always move elsewhere and that it is unlikely that those other areas will become overcrowded. The impact on Sugarloaf Open Space users will be significant regardless of whether they will choose to go elsewhere. WC-10 WC-11 WC-12 WC-13

The EIR indicates that the visual impacts of the modifications at the Walnut Creek WTP will be less than significant after mitigation. (See p. 3.3-27.) The first bullet in Mitigation Measure 3.3-2a indicates that the District will implement a landscaping plan prepared for the Walnut Creek WTP. However, the only plan included in the EIR is a one-page "conceptual" plan. Please provide details of the plan. Please indicate in particular the size and species of plant materials and an estimated growing time before the plants will provide the screening shown in the photo simulations. Further, the second bullet in Mitigation Measure 3.3-2a indicates that each project will include planting vegetation "and/or" constructing earth berms. Will any earth berms be constructed at the Walnut Creek WTP? WC-14

The EIR indicates that the New Reservoir would have significant visual impacts, and that mitigation measures "including careful facility siting, backfilling, site restoration, aesthetic color treatment and appropriate landscaping" could reduce these impacts. Please specify in detail these mitigation measures and discuss the extent to which they would reduce the impacts. Also, please discuss in detail the visual impacts that will be WC-15

caused by the construction of the four access options as well as any mitigation measures that would reduce the impacts. This analysis should include, but not be limited to, plans to remove access roads and restore the area following completion of construction of the project. WC-15

The EIR concludes without any analysis that with implementation of Mitigation Measure 3.4-1, the impacts of the New Reservoir would be less than significant. (See p. 3.4-35.) Please provide the same level of analysis of geology, soils and seismicity related to the New Reservoir as was provided for the "project-level improvements". Further, Measure 3.4-1 is inappropriate under CEQA, as it simply defers performing site-specific geotechnical evaluations without any knowledge at the time of project approval that impacts can be mitigated. Please include this evaluation in the EIR for the New Reservoir. Please also analyze the impact of grading for the New Reservoir on the slope stability for adjacent residences. Further, please analyze the geotechnical impacts of constructing each of the proposed access routes. WC-16

The EIR states that construction of the New Reservoir and access roads "could" result in the removal of protected trees, the disruption of water-associated features, impacts on special-status plants and wildlife and disturbance of migratory wildlife corridors. (See p. 3.6-74.) Please analyze in detail all of these potential impacts, as it is insufficient under CEQA to simply say that it could have these impacts. WC-17 Regarding trees, please note that the EIR incorrectly states Walnut Creek's definition of a protected tree (see p. 3.6-22) – while this is the correct definition of a highly-protected tree, most other trees with a circumference of 28 inches or more are also protected trees. WC-18 Also, please discuss potential mitigation measures for all of the foregoing impacts. WC-19 Further, the EIR only discusses the impact of the New Reservoir on migratory wildlife corridors while ignoring the impact of the access roads. Please analyze the latter impacts. WC-20

The project description indicates that Leland Pipeline construction includes pipeline construction on Lacassie Blvd. and North Main St., as well as closing a valve on N. California Blvd. However, the traffic section of the EIR only discusses impacts on Lacassie. Please discuss the construction-related activities on North Main St. and N. California Blvd. Please discuss the estimated time to complete construction on all three streets. WC-21

The EIR indicates that construction traffic related to the New Reservoir would be significant, but doesn't include any detailed analysis of that impact. (See p. 3.8-25.) Please discuss in detail the traffic and circulation impacts associated with construction of the New Reservoir, including the number of trips per day, the duration of the construction period, and the impacts on traffic, circulation and levels of service at each impacted intersection, together with other potential mitigation measures. WC-22

The EIR indicates without any analysis that construction of the New Reservoir would cause significant noise impacts unless mitigated. (See p. 3.10-54.) Please quantify these noise impacts. The EIR further indicates that a temporary noise barrier "would likely be WC-23

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adequate" to reduce noise to less-than-significant levels. Please provide specific information about the noise barrier, including location, size and materials. Please quantify the extent to which this noise barrier would reduce noise. WC-23

The same page of the EIR states that "[t]here are no specific truck volumes estimated for this project..." CEQA does not permit the District to avoid estimating the amount of truck traffic. Please specify the truck volumes, including numbers of truck and duration of truck traffic. Please quantify the noise impacts of this truck traffic using each of the access routes. In addition, access Option A indicates that construction traffic would be routed through three residential properties. Please indicate where and how close to residences this route would be located. WC-24

The same page of the EIR also indicates that there is a potential for vibrations that would annoy the closest residences and school receptors (presumably Murwood Elementary). Please provide details about the extent to which these vibrations would occur and for how long. Further, while the EIR states that performance standards would likely preclude damage to structures, the EIR does not address ways to mitigate the impact of the noise and vibration on school operations. WC-25

During the previous project at the Walnut Creek Water Treatment Plant, City staff commented on the concern regarding the addition of impervious surfaces at this site because it drains to an impacted drainage area and an area in a 100-year flood zone. An analysis of post-construction drainage impacts should be conducted. Additionally, work at this site is subject to the City, State, and Federal Clean Water Regulations. WC-26

Additionally, we want to clarify that the EIR needs to address the following concerns related to the proposed New Leland Pressure Zone reservoir on the Caltrans property near Rudgear Road and its access roadway:

1. The EIR is inadequate in that there is no analysis of the visual quality impacts that would result from the construction of the Leland Pressure Zone reservoir, nor any plans or drawings for this portion of the project. There are still several concerns that the City has been able to identify with regard to visual impacts. Specifically, this reservoir has the potential to significantly alter the shape and form of the hillside, which is in a highly visible location immediately adjacent to a City owned open space area (Sugarloaf Open Space) and a State designated scenic highway (Interstate 680). Additionally, the project only calls for the partial burial of the proposed reservoir, which may result in additional visual quality impacts. WC-27
2. The proposed modifications to the Walnut Creek Water Treatment Plan (WTP) are located in a location that is highly visible from the surrounding residential neighborhoods that are already impacted by the existing facility, as well as a City owned open space area (Acalanes Ridge Open Space). The proposed concrete buildings lack any architectural treatment and instead rely on landscaping to hide their appearance. This is an insufficient response to the visual quality impact that WC-28

will be created by the new buildings. The new buildings should be redesigned so as to be visually attractive in their own right, and consistent with the surrounding neighborhood. WC-28

3. The impact analysis for the New Leland Pressure Zone Reservoir is inadequate due to the lack of project specific information, including but not limited to the specific truck volumes anticipated for the project. Furthermore, it is unacceptable to state that the "short-term maximum noise increases could be maintained at a less-than-significant level with appropriate staging and planning," when the projected truck volume is expected to reach up to 100 trucks per hour (one truck every 36 seconds) with no specific information regarding the proposed staging of truck traffic has been provided. WC-29, WC-30
4. The alternatives analysis for the New Leland Pressure Zone Reservoir does not include a no-project alternative specifically for the reservoir, nor does it include any feasibility of upgrading the existing reservoir while being kept in service, or the construction of a replacement reservoir adjacent to the existing location. There is no discussion of the interrelation between the North Calaveras fault and the location of the proposed reservoir. Additionally, the figure contained within "Appendix J" does not show the full extent of the Leland Pressure Zone, and therefore does not provide an adequate amount of information to analyze the possible range of alternative locations. Furthermore, there is no discussion as to why there are no other possible sites that have been considered, nor is there any specific geotechnical analysis at the exact location of alternative site 7 beyond the general statement that "there are five mapped landslides on the property" (with no comparison of similar geotechnical issues on the other sites). WC-31, WC-32, WC-33, WC-34
5. The alternatives analysis for the New Leland Pressure Zone Reservoir does not include any analysis of the four listed alternatives for the access road. Furthermore, the project description does not explain why Option C (an access road connecting directly to I-680) cannot accommodate outbound traffic. WC-35
6. Finally, there are concerns regarding the construction impacts to the open space environment during construction. To address this concern and potential impact, no permission will be granted to allow material deliveries, dirt off-haul, or lay down areas through the open space area. The City would prefer that Route C (access road connecting directly to I-680) be used as the primary access route to the New Leland Pressure Zone construction site. WC-36
7. The open space areas adjoining the New Leland Pressure Zone reservoir were purchased using funds collected by an assessment and cannot be sold without public approval; requiring a two-thirds vote of the public. WC-37

After a comprehensive review of the Draft EIR, City staff has also identified several specific changes that need to be incorporated into the Draft EIR document:

1. Table S-10, subsection 3.8: Eliminate the language "to the extent feasible (5th bullet point)" and "to the extent possible (6th bullet point)" and replace with "Unless otherwise approved by the local agency." WC-38

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2. Table S-10, subsection 3.8, bullet point 7: This bullet point is not acceptable; two-way traffic shall be maintained at all times, unless approved by the local agency. In addition, any parking elimination and closures are also subject to local agency approval. If the parking is metered, than the local agency shall be compensated for any lost metered revenue for every day parking spaces are eliminated. WC-39
3. Table S-10, subsection 3.8, bullet points 8-10: Add, "As approved by the local agency." WC-40
4. Table S-10, subsection 3.8, bullet point 15: Eliminate language "to the extent feasible." WC-41
5. Two additional bullet points should be added to Table S-10, subsection 3.8:
   -Lane closures are only permitted during the approved work hours, as specified by the local agency, unless otherwise approved.
   -In high traffic areas, work will be scheduled during lower traffic volume periods, such as at night, to minimize traffic and business impacts, as approved by the local agency. WC-42
6. Table S-10, subsection 3.9-1, bullet point 6, add language "as required by local agency." WC-43
7. Table S-10, subsection 3.9-1: Develop a complaint response protocol for dust complaints from adjoining businesses and residents, which includes car and window washing services in response to complaints. WC-44
8. Table S-10, subsection 3.10-1: Remove "special situation" from the language regarding work hours. WC-45
9. Table S-10, subsection 3.10-1, bullet point 1: Refer to local agency's general plan for daytime and nighttime noise levels. WC-46
10. Table S-10, subsection 3.10-1, bullet point 9: Develop a complaint response protocol, which includes the option for hotel accommodations if nighttime noise complaints cannot be properly mitigated. WC-47
11. Table S-10, subsection 3.10-1, bullet point 18: All underground controlled detonation will be subject to city review in relation to transport and storage of explosives, notification, vibration monitoring, and road closures. WC-48
12. Table 2-7, page 2-36: Construction of pipelines in public roadways depends on the type and location of the roadway and will be subject to local agency regulations. In regards to tunneling, work hours beyond noise ordinance regulations (outside 7:00 am - 6 pm) require an after hours work permit and additional review of conditions by local agency. Weekend work is also subject to an after hour work permit and additional review and approval by the local agency. WC-49
13. Chapter 2.6.7: In relation to construction activities, all street areas shall be restored according to the local agency requirements. WC-50

City staff would also like to emphasize that this project will be subject to the following City regulations:

1. Tree preservation provisions pursuant to Section 3-8 of the Walnut Creek Municipal Code. WC-51

Comment Letter WC

2. Noise and nuisance prohibitions pursuant to Section 4-6.2 of the Walnut Creek Municipal Code. WC-52
3. Public right-of-way encroachment regulations pursuant to Title 7 of the Walnut Creek Municipal Code. WC-53
4. Storm water management and discharge control requirements pursuant to Section 9-16 of the Walnut Creek Municipal Code and mandated by State and Federal regulations. WC-54

Walnut Creek remains interested in obtaining the information we requested in our September 21st and January 16th letters and are incorporating them as reference into this letter responding to the Draft Environmental Impact Report (EIR) for the Water Treatment and Transmission Improvements Program. (Copies attached). Many of our concerns regarding the New Leland Pressure Zone reservoir as articulated in previous correspondence have still not been addressed. We look forward to receiving the additional requested information so we can better understand and comment on the potential impacts of the project. WC-55

We also hereby incorporate by reference the questions and requests for additional information submitted by other parties regarding the EIR. WC-56

I would like to thank you again for this opportunity to be involved in the Draft EIR planning process. We look forward to working together with EBMUD on drafting an Environmental Impact Report that addresses both construction related and permanent impacts caused by your proposed improvements. WC-57

Sincerely,

Rachel Lenci
Engineering Services Manager

cc: Gary F. Pokorny, City Manager
Valerie Barone, Community Development Director
Paul Valle-Riestra, City Attorney

CITY OF
WALNUT
CREEK

Comment Letter WC

WATER DISTRIBUTION
SEP 26 2005
PLANNING DIVISION

September 22, 2005

Mr. Jason Munkres
Associate Planner
East Bay Municipal Utility District
375 Eleventh Street (Mail Slot 701)
Oakland, CA 94607-4240

RE: Response to Notice of Preparation for the Water Treatment and Transmission Improvements Program

Dear Mr. Munkres:

Thank you for giving the City the opportunity to comment on your proposed program. City staff is very interested in participating in this process and look forward to working with you during this effort.

City staff has the following basic questions after reviewing the notice of preparation.

1) The notice of preparation covers two alternatives, both of which will require improvements to the Walnut Creek Water Treatment Plant. The City's residents were looking forward to the completion of work at the plant and now will again be impacted with the proposed project. Please explain why these improvements were not anticipated or accommodated with the recent expansion project at this facility and covered with the previous Environmental Impact Report. WC-58

2) It has been explained to staff that a new tank must be added in Walnut Creek to provide seismic reliability and alleviate pressure zone issues in the existing system. What other alternatives exist to achieve these goals? WC-59

3) Why are some elements of the proposal anticipated to be studied at a project level while others will be studies at a program level? A sequence of work should be incorporated within the Environmental Impact Report so that staff can understand and analyze the magnitude and duration of the anticipated impacts. WC-60

City staff has the following concerns that should be incorporated into the analysis conducted as part of your environmental process.

1) There are concerns regarding the visual impacts associated with the new facilities. To address this concern and impact, all facilities should be constructed underground, not bermed. WC-61

2) There are concerns regarding the construction impacts to the open space environment during construction. To address this concern and impact, no permission will be granted to allow material deliveries, dirt off-haul, or lay down areas through the open space. WC-62

3) There are concerns regarding construction related traffic impacts on City streets and Caltrans facilities. To address this concern and impact, tunneling should be utilized instead of open trenching on arterials and collectors. Additionally, hauling of materials to and from the site should be scheduled to avoid the commute hours. WC-63

City staff would also like to emphasize that this project will be subject to the following regulations:

1) Tree preservation provisions pursuant to Section 3-8 of the Walnut Creek Municipal Code.

2) Noise and nuisance prohibitions pursuant to Section 4-6.2 of the Walnut Creek Municipal Code.

3) Public right-of-way encroachment regulations pursuant to Title 7 of the Walnut Creek Municipal Code.

4) Storm water management and discharge control requirements pursuant to Section 9-16 of the Walnut Creek Municipal Code and mandated by State and Federal regulations.

WC-64

As more information is provided on the various components of the project, City staff will make comments and suggest mitigation measures in these and other areas such as aesthetics, biological resources, impacts to utility systems, hydrology and water quality, noise, recreation, air quality, geology and soils, land use and planning, and traffic and transportation.

I would like to thank you again for this opportunity and look forward to working together on drafting an Environmental Impact Report that addresses both construction related and permanent impacts caused by your proposed improvements.

Sincerely,

Mike Parness
City Manager

cc: Walnut Creek City Council

Comment Letter WC

CITY OF WALNUT CREEK

WATER DISTRIBUTION
JAN 14 2006
PLANNING DIVISION

January 16, 2006

Judy Zavadil
East Bay Municipal Utility District
Mail Slot 701
375 Eleventh Street
Oakland, CA 94607-4240

RE: Response to Revised Notice of Preparation for the Water Treatment and Transmission Improvements Program

Dear Ms. Zavadil:

Walnut Creek remains interested in obtaining the information we asked for in our September 21st letter and are incorporating it as reference into this letter responding to your revised notice of preparation. (Copy attached).

Additionally, we want to clarify that the EIR needs to address the following concerns related to the proposed new tank and its access roadway on the Caltrans property near Rudgear Road:

1. View impacts need to be analyzed and mitigated. Views from the public roads as well as surrounding residential neighborhoods should be addressed. Include in your view analysis impacts that result from topography changes (cut/fill, road, tank pad, etc.), construction of new structures and changes in vegetation. WC-65
2. Construction impacts (traffic, noise, dust, etc.) should be fully analyzed and minimized or mitigated. WC-66
3. Issues of slope stability and drainage due to any topography changes, construction of new structures and changes in vegetation need to be addressed. WC-67

As we stated in our previous letter, the City will make comments and suggest mitigation measures as more information on the various components of the project become available.

Sincerely,

Rachel Lenci
Engineering Services Manager

cc: City Manager
Community Development Director
Senior Assistant City Attorney

2.10 Rachel Lenci, City of Walnut Creek

Please note that the New Leland Pressure Zone Reservoir is examined at program level of detail in the WTTIP EIR. EBMUD is committed to engaging in a project-level EIR at an appropriate date in the future. Refer to Section 2.1.6, Master Response on the New Leland Pressure Zone Reservoir Alternatives, for more information.

WC-1 The comment states that the EIR is deficient based on the issues identified by the commenter in comments WC-2 through WC-67. EBMUD addresses those specific issues below.

WC-2 EBMUD is very sensitive to the value of open space and considered this in developing the New Leland Pressure Zone Reservoir alternatives. Part of the District's mission statement is to preserve and protect the environment for future generations while providing high quality potable water. Siting criteria for the New Leland Pressure Zone Reservoir (namely, elevation requirements and the District's desire not to displace developed land uses such as residences) constrains potential locations for the tank mainly to hillside, open space areas (see map in DEIR Appendix J). As described on DEIR pp. 6-65 and 6-66, three out of the seven sites considered for the tank were eliminated because they are on open space owned by the City of Walnut Creek. Notwithstanding, EBMUD has successfully mitigated similar projects. Thus, EBMUD believes that open space functions and fully buried tanks can coexist, although construction impacts must be considered. As discussed in Section 2.1.6, Master Response on the New Leland Pressure Zone Reservoir Alternatives, EBMUD will undertake a full alternatives analysis in a future project-level EIR on this project.

WC-3 There is no inconsistency. Both projects attempt to address existing deficiencies and demand growth inside our service area, which includes the San Ramon Valley. The current project addresses existing deficiencies that were not known during the development and implementation of the Walnut Creek-San Ramon Valley Improvements Project. For more information regarding these deficiencies, see **Response WC-58**.

WC-4 As stated in **Response WC-3**, the current project addresses existing deficiencies that were not known during the development and implementation of the Walnut Creek Water Treatment Plant Improvements Project. EBMUD would regrade and repave a 700-foot-long, approximately three-foot-wide section of Lacassie Avenue excavated during trenching for the pipe (see Appendix B, DEIR p. B-27).

WC-5 The comment asserts that the New Leland Pressure Zone Reservoir is not appropriate for analysis at a program level. Please see Section 2.1.1, Master Response on the Program- and Project-Level Distinctions, which describes why certain elements were analyzed at a programmatic level of detail in the WTTIP EIR. CEQA accommodates

projects of differing scope within the provisions addressing program EIRs. This can include individual, but related activities that are logical to discuss in a single document.

The DEIR provides an appropriate program-level analysis of the New Leland Pressure Zone Reservoir on the following pages:

- Pp. 2-85 through 2-86 (description of New Leland Pressure Zone Reservoir element, including four options for construction access)
- Pp. 3.2-20 through 21 (analysis and mitigation of land use impacts), 3.3-49 to 50 (analysis and mitigation of visual quality impacts)
- P. 3.4-35 (analysis and mitigation of geology, soils, and seismicity impacts)
- Pp. 3.5-49 through 50 (analysis and mitigation of hydrology and water quality impacts)
- Pp. 3.6-73 through 75 (analysis and mitigation of biological resource impacts)
- Pp. 3.7-33 (analysis and mitigation of cultural resource impacts)
- Pp. 3.8-24 through 25 (analysis and mitigation of traffic and circulation impacts)
- Pp. 3.9-34 through 35 (analysis and mitigation of air quality impacts)
- Pp. 3.10-53 through 54 (analysis and mitigation of noise and vibration impacts)
- Pp. 3.11-40 through 41 (analysis and mitigation of hazards and hazardous materials impacts)
- Pp. 3.12-22 (analysis and mitigation of public services and utilities impacts)
- Chapter 4 (growth-inducement potential and secondary effects of WTTIP project, including all program-level elements)
- Chapter 5 (cumulative impacts of WTTIP project, including all program-level elements)
- Pp. 6-65 through 6-66 (explanation of why alternative sites were not analyzed further)

As noted in the DEIR (Sections S.3.1, S.6, 2.7, and 3.1.4), more detailed environmental review under CEQA will be required before the New Leland Pressure Zone Reservoir project (and other WTTIP projects discussed a program level of detail) may be implemented.

As the comment notes, the DEIR does not discuss alternatives, other than alternative sites eliminated from further analysis (pp. 6-65 through 6-66), for this element. While a limited number of feasible sites have been identified to date based on geographic and

other site constraints, a full alternatives analysis, including an evaluation of the no-project alternative, and any identified sites, including new sites that may be identified will be conducted at the appropriate time by EBMUD as part of the future project-level EIR.

For purposes of this analysis, the identified range of alternative sites for the New Leland Pressure Zone Reservoir element of the WTTIP project was limited. The DEIR (pp. 6-65 through 6-66) identified seven prospective alternative sites for the New Leland Reservoir, but six of these alternatives – all except Site 3, the proposed site – were eliminated from further review based on infeasibility or inability to meet most of the project's basic objectives. Given feasibility constraints, this analysis complies with CEQA, particularly with respect to this program-level element. As noted in Section 2.1.6, Master Response on New Leland Pressure Zone Reservoir Alternatives, in this Response to Comments document, all sites will be evaluated in the project-level EIR.

The WTTIP EIR provides the required CEQA information concerning the alternative identified as preferred and other identified alternatives based on the level of detail available to EBMUD to date. With respect to the DEIR's discussion of alternative sites, please see **Response ORIN-115**, which outlines CEQA requirements for alternative site analysis and how the DEIR complies with these requirements. EBMUD has attempted to forecast with respect to impacts where possible, but it is not possible to foresee certain impacts until the program-level elements become more defined. Please also refer to Section 2.1.1, Master Response on Program- and Project-Level Distinctions.

WC-6 CEQA permits the level of review utilized in the WTTIP EIR for program-level elements, including the New Leland Pressure Zone Reservoir. Refer to **Response WC-5** and Section 2.1.1, Master Response on Program- and Project-Level Distinctions for additional response pertinent to this comment.

WC-7 Please see **Response BM-7** which explains the potential future need for High-Rate Sedimentation Units and Ultra-violet Light Disinfection processes at the District's in-line filtration water treatment plants (Walnut Creek, Lafayette, and Orinda). The DEIR also identifies the types of activities and includes maps showing tentative locations of the UV Disinfection building and high rate sedimentation units. CEQA permits the level of review utilized in the WTTIP EIR for program-level projects, including the program-level improvements at the Walnut Creek WTP, as explained in **Response WC-5**, above, and the responses referenced therein. Please also refer to Section 2.1.1, Master Response on Program- and Project-Level Distinctions for additional response pertinent to this comment.

WC-8 The DEIR does not include the requested detailed description and detailed analysis of construction traffic access and identification of the environmentally superior options, because the information requested in this comment (e.g., roadway widths, grading,

retaining walls, post-project mediation) has not been developed in sufficient detail to support project-level evaluation and comparison. Only general comparisons of environmental trade-offs among the alternative routes can be made based on currently available information:

Option A:

- Requires more truck trips through narrow residential streets relative to other options.

Option B:

- Has the longest haul route traveling through the open space area, and on narrow (privately owned) streets off of Livorna (although the narrow stretch is shorter than Option A), and would displace use of the Bottom Spring Trail for the duration of construction

Option C:

- With respect to travel through residential areas, this option would reduce the number of truck trips on residential streets. Potential impacts to natural resources occurring in the open space (e.g., removal of protected trees, habitat impacts) could occur.

Option D:

- Although this option would reduce truck trips through residential areas, there would be more earthwork required for the site access, the type of equipment used to haul materials to the site would differ (track-mounted equipment would be used), and as a consequence, construction would likely last longer.

A more in-depth and detailed analysis at this point would be speculative. The District is not relying on the WTTIP EIR to approve the reservoir site or any of the potential access routes to the reservoir site. EBMUD has committed to conduct a project-level EIR at the appropriate time in the future. Such review would occur when this program-level element has been further defined and a more specific analysis becomes feasible. As explained in **Response WC-5**, and the responses referenced therein, the level of detail provided in the WTTIP EIR is adequate and appropriate for a program EIR and a subsequent project-level EIR will include a more detailed analysis.

WC-9 The District acknowledges that the City of Walnut Creek is an important landowner with whom it would need to negotiate to obtain permission to use the Sugarloaf Open Space for either Option A or B. Rudgear Drive, however, is a public right-of-way which is available for public use, although the District would seek to address any issues raised by the City. Please also refer to Section 2.1.3, Master Response on EBMUD Obligations to Comply with Local Ordinances, Obtain Local Agency Approvals and Permits, and Pay Local Agency Fees for additional response pertinent to this comment.

WC-10 See DEIR p. 3.2-14. The land use significance criteria include consideration of whether the proposed project would physically divide an established community, convert

farmland or otherwise result in farmland impacts, increase the use of recreation facilities such that physical deterioration would occur, or include new recreation facilities whose construction might have an adverse environmental impact. The DEIR (pp. 3.2-20 through 3.2-21) indicates that, on the basis of information currently available on this program-level element, the tank would likely be a relatively compact facility and would not likely disrupt or divide the existing community, or have any of the other effects described above.

The impacts likely to disturb residents near the reservoir site and along the haul route would be primarily related to traffic and noise. The DEIR addresses these impacts not in Section 3.2, but in Section 3.8, Traffic and Transportation, and Section 3.10, Noise and Vibration. Both sections indicate that, on the basis of the project as currently defined, mitigation would be needed to reduce traffic and noise impacts associated with project construction.

WC-11 As described on DEIR p. 3.2-20, the New Leland Pressure Zone Reservoir site identified in the DEIR and adjacent areas are designated as Urban and Built-up Lands. There are no agricultural resources within the site; however, there are Important Farmland Maps Grazing Lands in the project vicinity, adjacent to the Sugarloaf Open Space. If the New Leland Pressure Zone Reservoir is located at this site, it is not expected that it would significantly affect grazing, as any construction-related impacts would be temporary. However, this issue would be further evaluated in a project-level EIR upon development of site-specific details.

WC-12 The comment states that "while construction is temporary, that does not make the construction-related impacts insignificant." Refer to **Responses WC-10** and **WC-11**.

WC-13 See DEIR p. 3.2-14. The land use significance criteria include consideration of whether the proposed project would physically divide an established community, convert farmland or otherwise result in farmland impacts, increase the use of recreation facilities such that physical deterioration would occur, or include new recreation facilities whose construction might have an adverse environmental impact. Based on the criteria, the DEIR considers potential recreation-related environmental impacts, such as physical deterioration of a recreation resource, or potential environmental impacts associated with construction or rehabilitation of recreation facilities. The proposed reservoir includes potential construction access routes that could be located within portions of Sugarloaf Open Space, including potential use of the Bottom Spring Trail. Access through the open space could disrupt use of or require closure of segments of the trail or other areas of the open space during construction. In addition, reservoir construction would result in noise, dust, and construction traffic that could further impact use of the Sugarloaf Open Space. However, the proposed project would not require closure of large areas of the open space and for the most part, use of the open space would continue as under existing conditions. In addition, the full use of the recreation area would be restored following construction. The proposed project would

not likely result in large numbers of recreation users diverting to other areas of the open space or to other recreation areas, resulting in overuse of those areas and associated environmental impacts resulting from physical deterioration of resources. In addition, the proposed project would not result in construction or rehabilitation of recreation facilities. Therefore, on the basis of information currently available on the identified site and subject to confirmation after project-level EIR analysis, including review of other alternatives, construction of this project component at the identified site is expected to result in a less-than-significant impact on recreation resources.

WC-14 The landscaping plan provided in the DEIR as part of the Visual Quality figures following Section 3.3 is representative, and based on the landscaping planted for the recently completed project at the WTP. Measure 3.3-2a (DEIR p. 3.3-35) indicates that community representatives and the City will have input on final landscape plans. Table 3.3-3 (DEIR p. 3.3-20) presents a representative plant palette and indicates container size and plant height at five years. The simulations (Figures 3.3-WCWTP-6 and 3.3-WCWTP-8 at the end of Section 3.3 of the DEIR) depict the landscaping at five years' maturity. No earthen berms are proposed for Walnut Creek WTP.

WC-15 The DEIR does not include the requested analysis regarding a detailed description and analysis of visual impacts and proposed mitigation measures, because it is not possible to conduct this analysis at this time. The analysis of visual quality is particularly sensitive to design details, and simulations are developed through computer modeling of drawings indicating topographic changes in plan view and cross-section, elevations for the tank and appurtenant features, and details such as fencing, valve box location and other features. that have yet to be determined. In other words, a more in-depth and detailed analysis at this point would be speculative. EBMUD has committed to perform a project-level EIR at the appropriate time in the future. Such review would occur when this program-level element and alternatives have been further defined and a more specific analysis becomes feasible. As explained in **Response WC-5**, and the responses referenced therein, the level of detail provided in the WTTIP EIR is adequate and appropriate for a program EIR.

WC-16 Consistent with CEQA requirements, the DEIR identifies potentially significant impacts associated with the New Leland Pressure Zone Reservoir, a program-level element, based on the information currently available on that project. A more in-depth project-level EIR will be conducted at a later date. The DEIR and supporting information conclude that impacts related to geology, soils and seismicity could be mitigated to a less-than-significant level. In fact, most impacts identified in an EIR can be reduced to less-than-significant levels through standard mitigation approaches[1]; this is true for mitigating geologic hazards at the identified site for the proposed tank based on information currently available on the project (e.g., topographic alterations, and

[1] As discussed on DEIR p. 3.2-50, the one project-specific unavoidable impact likely associated with the identified New Leland Pressure Zone Reservoir site, based on design information currently available, is potential adverse impacts on views.

bedrock characteristics at the site) and the mitigation strategies available to address geologic hazards.

The mitigation measures identified in Section 3.4 of the DEIR (Geology, Soils and Seismicity) provide a means to minimize the impacts relating to geology and seismicity to a less-than-significant level through standard geotechnical engineering practices. The DEIR's approach to mitigation of geological impacts is adequate under CEQA because it prescribes mitigation measures that 1) EBMUD is committed to completing; 2) are tied to specific performance standards, or desired end results of the mitigation; 3) provide a range of options, based on established industry standards, to achieve the performance standards; and in some cases, 4) are tied to a recognized guideline or established practice.

Note also that the presence of geologic hazards was an important consideration in determining feasible locations for the proposed reservoir and will continue to be considered when alternatives are examined as part of the project-level EIR (see **Response WC-34**). Two sites were determined to be fatally flawed and therefore eliminated from further consideration based on slope instabilities (Site 7) and faults (Site 5).

WC-17 The DEIR (pp. 3.6-74 and 3.6-75) analyzes potential impacts associated with the New Leland Pressure Zone Reservoir at a level of detail commensurate with the degree to which the project has been defined to date. For example, the last paragraph on DEIR p. 3.6-74 describes the vegetation habitat at the identified New Leland Pressure Zone Reservoir and Pipeline site, and indicates that some protected trees could be removed. Without details at a scale appropriate for project-level evaluation (see the D Maps at the end of Volume 1 of the DEIR), the specific location of construction footprints for all components of the project (the tank, appurtenant features such as valve box and parking area, overflow drain, access road, pipeline alignment) cannot be identified and the biologists analyzing the project cannot characterize impacts (e.g., number of protected trees to be removed) in greater detail. In other words, a more in-depth and detailed analysis at this point would be speculative.

EBMUD has committed to conduct a project-level EIR at the appropriate time in the future. Such review would occur when this program-level element has been further defined and a more specific analysis becomes feasible. As explained in **Response WC-5**, and the responses referenced therein, the level of detail provided in the WTTIP EIR is adequate and appropriate for a program EIR.

WC-18 This comment regarding protected trees is noted. The DEIR p. 3.6-22, first paragraph, is revised (refer to Section 3.2, Text Revisions, in this Response to Comments document).

WC-19 The comment requests discussion of measures to mitigate impacts to biological resources associated with the identified New Leland Pressure Zone Reservoir site. As

the DEIR indicates, the impacts identified to date for the identified site for the New Leland Pressure Zone Reservoir are based on currently available design information, and could be mitigated with measures similar to those identified under the analysis of project-level elements. These include: Measures 3.6-1a through 3.6-1e (to mitigate impacts to protected trees), Measures 3.6-2a through 3.6-2f (water-associated features), Measures 3.6-3a through 3.6-3c (special status plants), and Measures 3.6-4a through 3.6-7c (special status wildlife).

A more in-depth and detailed analysis of mitigation at this point would be speculative. EBMUD has committed to conduct a project-level EIR including an analysis of alternatives at the appropriate time in the future. The EIR will commence when this program-level element has been further defined and a more specific analysis becomes feasible. As explained in **Response WC-5**, and the responses referenced therein, the level of detail provided in the WTTIP EIR is adequate and appropriate for a program EIR.

WC-20 The concern regarding an analysis of impacts of the access roads is noted. See Section 3.2 for revisions to text on DEIR p. 3.6-75.

WC-21 The traffic impacts of the Leland Isolation Pipeline and Bypass Valves project are fully analyzed in Section 3.8 of the DEIR. The other components of the project besides the pipeline in Lacassie Boulevard and the short pipeline in Danville Boulevard will not have any traffic-related impacts. All components of the Leland Isolation Pipeline and Bypass Valves project would be completed within approximately 1 year. Please note, as stated on DEIR p. 3.8-16, the pace of open-trench work for proposed pipeline improvements in paved areas is estimated to average 80 feet per day, and the work schedule would be 8:30 a.m. to 4:30 p.m., Monday through Friday. Based on that estimated work pace, construction in front of an individual property would take approximately one or two days.

WC-22 The detailed information requested in this comment (number of trips per day, duration of construction, and attendant impacts on traffic and circulation) is consistent with the information presented in DEIR Appendix B for project-level elements. There will also be a subsequent project-level EIR for the New Leland Pressure Zone Reservoir and that analysis will include the requested details on construction traffic. This EIR would occur when the program-level element has been further defined and a more specific analysis becomes feasible. As explained in **Response WC-5**, and the responses referenced therein, the level of detail provided in the WTTIP EIR is adequate and appropriate for a program EIR.

WC-23 The DEIR does not include the requested detailed description and detailed analysis of construction-related noise impacts and proposed mitigation measures, because it is not possible to conduct this analysis at this time. Construction characteristics that affect the magnitude and significance of noise impacts include the duration of specific construction activities, types of equipment used, equipment placement relative to

topography and sensitive receptors, etc. A more in-depth and detailed analysis at this point would be speculative. EBMUD has committed to conduct a project-level EIR including a full analysis of alternatives under CEQA at the appropriate time in the future. This EIR would occur when this program-level element has been further defined and a more specific analysis becomes feasible. As explained in **Response WC-5**, and the responses referenced therein, the level of detail provided in the WTTIP EIR is adequate and appropriate for a program EIR. As noted by the commenter, the DEIR on p. 3.10-54 concludes, at a program level, that certain construction noise impacts would likely be significant even with mitigation but that other noise impacts (such as that associated with truck haul routes) could likely be mitigated to less than significant.

WC-24 Please refer to **Response WC-22**.

WC-25 Murwood Elementary School is about 1,000 feet away from the potential pipeline construction. Vibration and noise generated from construction would have a less-than-significant impact on school operations.

WC-26 As discussed in **Response ORIN-52**, under Impact 3.5-6 which addresses creation of impervious surfaces, impact significance for certain facilities has been revised to reflect the applicability of municipal stormwater permitting requirements to projects that create more than 10,000 square feet of impervious surfaces at the water treatment plants, including the Walnut Creek WTP. Refer to Section 3.2, Text Revisions, in this Response to Comments document.

In the case of the Walnut Creek WTP, the project would increase the impervious surface by 11,350 square feet under both alternatives. However, approximately 8,000 square feet of the impervious area is the construction of the filter basins which will retain rainfall and will not contribute to runoff from the site and therefore will have a less than significant impact.

Please also refer to Section 2.1.3, Master Response on EBMUD Obligations to Comply with Local Ordinances, Obtain Local Agency Approvals and Permits, and Pay Local Agency Fees for additional response pertinent to this comment.

WC-27 Refer to **Response WC-15**. The District agrees that the identified reservoir site has the potential to significantly alter the shape and form of the hillside in a highly visible location. The DEIR (p.3.3-50) concludes: “Implementation of mitigation, including careful facility siting, backfilling, site restoration, aesthetic color treatment and appropriate landscaping, could reduce these impacts; however, visual impacts at the site could remain significant and unavoidable.” As noted above, a project-level EIR, including an analysis of alternatives, will be conducted by EBMUD prior to implementation of this project.

WC-28 The District believes that implementation of Measure 3.3-2c (DEIR p. 3.2-36), which requires that the District “use design elements to enhance the aesthetic appearance of

proposed facilities and to integrate them with the existing visual environment" can accomplish the City's request in this comment that the new buildings be designed "so as to be visually attractive in their own right, and consistent with the surrounding neighborhood." In response to this comment, text has been added as the last bullet on DEIR p.3.2-36 (refer to Section 3.2, Text Revisions, in this Response to Comments document).

WC-29 For a discussion of the impact analysis, please refer to **Responses WC-5** and **WC-22**.

WC-30 Refer to **Response WC-23**, which explains why the programmatic level of noise analysis provided in the DEIR for the new Leland Pressure Zone Reservoir and Pipeline is appropriate.

WC-31 The DEIR Project Description (DEIR pp. 2-85 and 2-86) describes the need to replace the existing Leland Reservoir which is due primarily to capacity constraints, age, elevation, maintenance issues, and the need to construct a new reservoir (the New Leland Pressure Zone Reservoir) before the existing reservoir can be taken out of service. The problems associated with the existing reservoir limit the District's ability to upgrade it while keeping it in service (see **Response EE-4** for additional information). As noted in the Pressure Zone Planning Program Study, there is no storage in the eastern part of the Leland Pressure Zone, which leaves the area vulnerable in the event of a pipeline failure; consequently, EBMUD is therefore proposing the construction of the New Leland Pressure Zone Reservoir (a second tank) on the east side of the pressure zone to substantially improve the reliability of the level of service (flow, pressure, fire protection) to the pressure zone. Refer to **Response WC-5** regarding replacement of the Leland Reservoir at its existing site and, more generally, the District's commitment to consideration of alternatives to the New Leland Pressure Zone Reservoir in a future project-level EIR.

A full review of the no-project alternative will occur when this program-level element has been further defined and is planned to be undertaken, and a more specific analysis becomes feasible. Please also see **Response WC-59**. As explained in **Response WC-5**, and the responses referenced therein, the level of detail provided in the WTTIP EIR is adequate and appropriate for a program EIR.

WC-32 The DEIR discusses the seismicity of the region beginning on p. 3.4-4 and includes a discussion of all the major active faults of the Bay Area such as the Calaveras fault and their potential impact on all the project elements. Table 3.4-2 on DEIR p. 3.4-7 provides detailed information on each fault as well as distances to the nearest proposed project element. The proposed New Leland Pressure Zone Reservoir has been determined to be closest to the Mt. Diablo Thrust and the Marsh Creek-Greenville faults as indicated in Table 3.4-2. In addition, all the active faults including the Calaveras fault are depicted in DEIR Figure 3.4-1. Therefore, there is sufficient regional setting information appropriate for a Program Level analysis of the New Leland Pressure Zone Reservoir. Earthquakes will be considered in the design of the

proposed reservoir. The District standard practice is to meet or exceed the design force loads required by the Uniform Building Code and the American Water Works Association. In addition, as noted in **Response WC-31**, the proposal for construction of the New Leland Pressure Zone Reservoir on the east side of the pressure zone is in part to provide storage in the eastern part of the zone.

WC-33 The existing Leland Reservoir has a bottom elevation of 331 feet. The New Leland Pressure Zone Reservoir needs to have a similar bottom elevation and overflow elevation in order to maintain customer service pressures and to prevent water quality problems associate with water age. The portion of the Leland Pressure Zone that is north of area shown in DEIR Appendix J is either lower than elevation 330 feet or is in the portion of the pressure zone serviced by Grayson Reservoir, and therefore would not include feasible alternatives for the New Leland Pressure Zone Reservoir.

WC-34 In this analysis, seven potential sites were considered for the New Leland Pressure Zone Reservoir as described in Section 6.10.3 of the DEIR. Existing geotechnical data were reviewed for all seven sites. Landslides are only mentioned for site 7, because it was the only site rejected due to the presence of landslides. Water tanks are extremely heavy, so the mere presence of a potential landslide is enough to make a site unfeasible. Damages that could result from a failure, not to mention the outage of a local water source, could be very high. Site-specific geotechnical studies are not required to confirm the depth and extent of the landslide. As required by CEQA, the DEIR identifies the alternative sites considered by EBMUD and briefly explains the reasons why they were rejected as infeasible. **Response WC-5** further explains the significant constraints on selecting a feasible location which limited the sites that could be considered by EBMUD and explains that a further analysis of alternatives at a project level will be conducted at the appropriate time as part of a project-level EIR.

WC-35 The DEIR, which examines the New Leland Pressure Zone Reservoir at a programmatic level, provides a brief summary (pp. 6-65 and 6-66) of the alternatives analysis performed by EBMUD to date. The brief summary of alternative construction access routes considered by EBMUD (DEIR p. 2-86) has been included as part of a program-level discussion of the currently identified site, but *a more inclusive discussion of sites will be provided in a future project-level* EIR. In other words, as noted in **Response LG-5**, the District will revisit the site selection process in the project-level environmental documentation. The DEIR does not include the requested detailed discussion of alternatives for construction access routes, in part because of limited information about construction characteristics, and in part, because the District is not using this EIR as a basis for approving an access route.

Regarding Option C, this route is an existing access road connected directly to I-680. The road geometry prevents its use as a construction on-ramp to the freeway. Specifically, a truck would have to make a 145 degree, 20 foot radius turn at speeds

increasing to 65 mph at the bottom of the access road in order to merge with traffic. This is not a feasible alternative.

WC-36 Route C is not viable as the primary access route because it can only accommodate inbound traffic. Please also refer to Section 2.1.3, Master Response on EBMUD Obligations to Comply with Local Ordinances, Obtain Local Agency Approvals and Permits, and Pay Local Agency Fees for additional response pertinent to this comment. It should be noted that one way use of Route C would require Caltrans approval which is problematic.

WC-37 This comment is noted.

WC-38 EBMUD will work in cooperation with local agencies to avoid project-generated adverse impacts on traffic flow, and will comply with conditions contained in encroachment permits obtained from those agencies. The cited phrases ("to the extent feasible" and "to the extent possible") recognize that in some cases a blanket application of a mitigation measure may not be possible. The first sentence of the fourth bullet point under Measure 3.8-1 (DEIR p.3.8-14) has been revised (refer to Section 3.2, Text Revisions, in this Response to Comments document).

WC-39 It is recognized that lane closures (and parking prohibitions if needed) are subject to approval by the local agency as part of the encroachment permit application and issuance (see **Response WC-38**). However, the 7th bullet point of Measure 3.8-1 cited by the commenter recognizes that pipeline installation in roadways using open-cut trenching could reduce the available number or width of travel lanes, resulting in short-term delays. As described on DEIR p. 3.8-16, some roadway segments affected by the project would have sufficient pavement width outside the construction zone to accommodate two-way traffic, but others would not. The provisions set forth in the 7th bullet require that, where physically possible, traffic flow past the construction zone be maintained. The first sentence of the fifth bullet point under Measure 3.8-1 (DEIR p.3.8-14) has been revised (refer to Section 3.2, Text Revisions, in this Response to Comments document).

WC-40 The sixth, seventh, and eighth bullet points under Measure 3.8-1 (DEIR p.3.8-14) has been revised (refer to Section 3.2, Text Revisions, in this Response to Comments document).

WC-41 See **Response WC-38**.

WC-42 See **Response WC-38**.

WC-43 The referenced measure, which requires daily street sweeping, is a standard dust-control measure specified by the BAAQMD, not local agencies. If a local agency has a requirement for daily street sweeping that varies from this BAAQMD requirement, it should be implemented as part of any local permit authority it maintains (e.g.,

encroachment permit). This measure, as currently stated, is adequate to reduce the potential impact to a less-than-significant level (as defined by CEQA) within the Bay Area Air Basin (BAAQMD jurisdiction), which includes all affected local agencies.

As indicated in Measure 3.8-1, the contract specifications will state that the contractor will obtain any necessary road encroachment permits prior to construction and will comply with conditions of approval attached to project implementation.

WC-44 EBMUD will implement Measures 3.9-1a, 1b, and 1c to prevent a dust problem for neighbors. As stated in Measure 3.10-1a, the District will also designate a contact person for responding to construction-related issues. The name and phone number of the liaison will be conspicuously posted at construction areas, on all advanced notifications, and on the EBMUD project website. If someone believes that their property has been damaged due to the project, then a claim should be filed; pursuant to standard District practice, any claims would be evaluated on a case-by-case basis.

WC-45 Unfortunately, there may be special situations that occur and require work outside of a jurisdiction's noise ordinance, for example, equipment operations associated with tunnel ventilation and dewatering.

WC-46 Please refer to the full text of Measure 3.10-1 on DEIR p. 3.10-30, rather than the abbreviated summary measure in Table S-10. This measure specifies that daytime construction noise shall not cause noise levels to exceed the 70-dBA speech interference criterion at the closest affected sensitive receptors, and that noise levels be consistent with ordinance noise levels listed in Table 3.10-1 (except during critical water service outages or other emergencies and special situations). Noise level limits listed in this table apply to construction activities occurring beyond the specified ordinance hourly restrictions. This table includes Walnut Creek's Municipal Code hourly restrictions (see Footnote "d"). See also revisions to Measure 3.10-1b in Section 3.2 of this Response to Comments document. Since Walnut Creek's General Plan Noise Element (dated April 6, 2006) does not include specific standards for equipment operation (except to not increase noise levels substantially), the commenter's request to add the reference "local agency's general plan for daytime and nighttime noise levels" to this measure would not be relevant to construction equipment operation and activities. General Plan noise level guidelines typically apply to the compatibility of a proposed land use with the existing or future noise environment. Noise compatibility of proposed water facilities with the existing noise environment is not an issue and impacts in this regard have been addressed.

WC-47 The District will review and respond to noise complaints on an individual basis. The option of providing hotel accommodations is one of the District's standard measures. Measure 3.10-1a, bullet 8, on DEIR p. 3.10-31 has been revised (refer to Section 3.2, Text Revisions, in this Response to Comments document).

WC-48 Comment noted. EBMUD will coordinate with the City, as well as provide adequate notice to any potentially affected neighbors prior to any controlled detonation activities that might be required; however, none are anticipated at this time. Please also refer to Section 2.1.3, Master Response on EBMUD Obligations to Comply with Local Ordinances, Obtain Local Agency Approvals and Permits, and Pay Local Agency Fees for additional response pertinent to this comment.

WC-49 EBMUD intends to coordinate with the City of Walnut Creek during construction of the pipelines to ensure all concerns are considered. See Section 2.1.3, Master Response on EBMUD Obligations to Comply with Local Ordinances, Obtain Local Agency Approvals and Permits, and Pay Local Agency Fees for additional response pertinent to this comment.

As noted on DEIR p. 2-36, EBMUD expects that construction of pipelines would occur within the hours of noise ordinance regulations except during critical water service outages or other emergencies and special situations. Tunneling would be undertaken in rare instances as indicated in the DEIR and local agencies would be notified and mitigation as set forth in Section 3.10 of the DEIR would be utilized. Also refer to the revisions to Measure 3.10-1b in Section 3.2 of this Response to Comments document.

WC-50 Wherever reference is made in the DEIR to restoration of roadways after pipeline work is finished, the intent is to restore the affected street areas according to ordinances as required in Section 12808 of the MUD act.

WC-51 See **Response WC-49**. See **Response AH-2** for details of the mitigation measures pertaining to protected trees included in the DEIR. These mitigation measures incorporate many of the County's, as well as local jurisdictions', permitting requirements in order to minimize impacts to heritage and otherwise protected trees.

WC-52 See **Response WC-49**. This section of the Walnut Creek Nuisance Ordinance is cited in Table 3.10-1, Footnote "d", and incorporated by reference into Measure 3.10-1.

WC-53 See **Response WC-49** as well as Section 2.1.3, Master Response on EBMUD Obligations to Comply with Local Ordinances, Obtain Local Agency Approvals and Permits, and Pay Local Agency Fees for additional response pertinent to this comment. The necessary road encroachment permits will be obtained prior to construction.

WC-54 See **Response WC-49**. EBMUD will comply coordinate with the City of Walnut Creek and comply with state and federal water quality laws. Please also refer to Section 2.1.3, Master Response on EBMUD Obligations to Comply with Local Ordinances, Obtain Local Agency Approvals and Permits, and Pay Local Agency Fees for additional response pertinent to this comment.

WC-55 See responses to attached letters, below. The New Leland Pressure Zone Reservoir is a program-level element; therefore, the project requires additional study and will be subject to a subsequent project-level EIR. See **Response WC-5**.

WC-56 Comment acknowledged.

WC-57 Comment acknowledged. As noted, EBMUD is willing to work together with the City on the WTTIP implementation.

WC-58 The actual amount of water treated per day by each filter has been less than designed for in the Walnut Creek Water Treatment Plant Improvements Project due to periodic emerging source water quality problems. These include increases in turbidity in spring and early summer, and increases in algae in Pardee Reservoir, which have at times adversely affected water quality at the water treatment plant.

In addition, EBMUD is proposing to construct the Leland Pumping Plant No. 2 at the Walnut Creek WTP to correct hydraulic problems in Leland Pressure Zone. These hydraulic problems were being studied as part of EBMUD's district wide pressure zone master planning study, which concluded in 2005 when the Walnut Creek Water Treatment Plant Improvements Project was being constructed. The result of the Leland Pressure Zone Planning Study was the recommendation to isolate the Leland Pressure Zone from the Danville Pumping Plant (and Danville Pressure Zone), so that pumping plant demands would no longer adversely affect water storage and water pressure within the Leland Pressure Zone. The new Leland Pumping Plant No. 2 would isolate the Leland Pressure Zone from the water treatment plant clearwell and the Danville Pumping Plant. Most of the City of Walnut is served by the Leland Pressure Zone and the City would be the primary beneficiary of the new Leland Pumping Plant No. 2.

WC-59 Section 2.6.13 of the DEIR (p. 2-86) describes the need for both Leland Reservoir Replacement and New Leland Pressure Zone Reservoir. The New Leland Pressure Zone Reservoir is required to provide water storage for the pressure zone while the existing Leland Reservoir is decommissioned and reconstructed (expected to take two years). Seismic reliability and the alleviation of pressure zone level of service issues were also considered in the site selection process as having storage in two separate locations is hydraulically and operationally more efficient and usually handles both planned maintenance outages and emergencies more reliably.

WC-60 Table 2-1 on DEIR p. 2-2 identifies which WTTIP projects are analyzed at a project-level and which are analyzed at a program level. Refer to Section 2.1.1, Master Response on Program- and Project-Level Distinctions for a discussion of project and program level analysis. DEIR Tables 2-6, 2-8, and 2-9 provide the schedules for the WTTIP projects. All projects analyzed at a program level in this Response to Comments document would undergo future project-level CEQA review if they are deemed necessary in the future.

WC-61 The new Leland Pumping Plant No. 2 would be built adjacent to the recently constructed backwash water treatment system near the site's northern edge. Given its comparable scale and proximity to existing facilities, the presence of the new pumping plant would not substantially alter the general appearance of the northern side of the Walnut Creek WTP site. Implementation of Measures 3.3-2a through 3.3-2c would reduce the visual impact to a less-than-significant level. Constructing the pumping plant underground is not required.

WC-62 The District acknowledges that the City of Walnut Creek is a landowner of important open space and that the District would need to obtain permission from Walnut Creek for any temporary use of the Sugar Loaf Open Space.

WC-63 Implementation of the WTTIP would require pipeline construction in Walnut Creek at two locations: Lacassie Avenue and Rudgear Road. For the Leland Isolation Pipeline and Bypass Valves project, a 700-foot-long section of 24-inch-diameter pipe would be installed in Lacassie Avenue. The pipe must connect to existing pipelines located at shallow depth. Consequently, the logical construction method for this pipe segment is open trench. As stated on DEIR p.2-36 and in Measure 3.1-8 (DEIR p.3.8-14), truck trips would be scheduled between 9:00 a.m. and 4:00 p.m. and outside commute hours to the extent feasible. The New Leland Pressure Zone Reservoir inlet/outlet pipeline as currently proposed would cross Rudgear Road near I-680. That roadway crossing would be tunneled via bore-and-jack construction.

Please also refer to Section 2.1.3, Master Response on EBMUD Obligations to Comply with Local Ordinances, Obtain Local Agency Approvals and Permits, and Pay Local Agency Fees for additional response pertinent to this comment.

WC-64 See **Responses WC-49** to **WC-54**. Each of these requirements has been examined and addressed.

WC-65 Refer to **Response WC-15** regarding evaluation of impacts to views from implementation of the New Leland Pressure Zone Reservoir.

WC-66 Refer to **Response WC-22** regarding evaluation of traffic-related impacts from implementation of the New Leland Pressure Zone Reservoir.

WC-67 The New Leland Pressure Zone Reservoir is included in the discussion of Program-Level projects on DEIR p. 3.4-35 (refer also to **Response WC-16**). As mentioned in this discussion, this proposed program level element includes inclined areas that may be susceptible to slope failure and provides mitigation to respond to this potential impact. As stated in the DEIR, slope stabilization measures could include slope terracing, fill compaction, soil reinforcement, surface and subsurface drainage improvements, engineered retaining walls, buttresses, and erosion control measures (e.g. revegetation plans).

Individuals, Businesses, Organizations, and Associations

ESA

WATER DISTRIBUTION
SEP 18 2006
PLANNING

EBMUD

Water Treatment & Transmission Improvements Program
Draft Environmental Impact Report

Name: ADAM HENDERSON

Address: 3338 FREEMAN RD. Walnut Creek

Email: ADAM@SleepyHollow.NET

COMMENTS:

AH-1 THE TICE VALLEY WATER PUMPING PLANT LOCATION ON THE ALTERNATE SITE ON NORTH OLYMPIC IS A BAD IDEA!!

AH-2 - DAMAGE AND ELIMINATION OF GRAND HERITAGE OAK TREES - UNACCEPTABLE!

AH-3 - HORRIBLE LOCATION FOR TRAFFIC IMPACT - OLYMPIC BLVD. IS NOW A MAJOR THOROUGHFARE AND THAT SOFT CORNER IS DANGEROUS - UNACCEPTABLE!

AH-4 - NO EIR - NO PROPER NOTICE TO NEIGHBORS - UNACCEPTABLE!!

AH-5 - MAJOR IMPACT OF VALUE TOO HOMES SHARING THE PROPERTY LINE - UNACCEPTABLE

Submit this form as you leave this meeting, mail or hand deliver the form to EBMUD at Mail Stop # 701, 375 Eleventh Street, Oakland, CA, 94607, or email comments to Judy Zavadil, Senior Project Manager, at wttip@ebmud.com.

NOTE: Comments on the Draft EIR must be received by EBMUD by September 18, 2006, at 4:30 pm. Comments should be in writing and include your name and address.

AH-6 - THIS WILL NOT BE AN ACCEPTABLE LOCATION FOR THE PUMP STATION.

2.11 Adam Henderson

AH-1 EBMUD staff is not recommending selection of the Tice Pumping Plant alternative site. However, approval of WTTIP projects and project locations is at the discretion of the EBMUD Board of Directors.

AH-2 See **Response AH-1,** above. As noted on DEIR p. 6-35, development of the pumping plant at the alternative site would not require removal of any protected trees, although damage to some trees could occur. As indicated in Table 3.6-4 (DEIR p. 3.6-29), use of the proposed site would require the removal of 7 to 10 protected trees with a diameter at breast height of 6.5 inches or greater. (Potential impacts to trees from the pipeline alignment are essentially the same under the preferred and alternative sites for the Tice Pumping Plant.)

Regarding potential damage to trees, the DEIR sets forth measures to minimize such impacts (see Table 3.6-5 on DEIR p. 3.6-31). These measures include: Measure 3.6-1a, *Tree Protection Measures During Construction*; Measure 3.6-1b, *Protected Tree Pruning and Replacement*; Measure 3.6-1c, *Protected Tree Monitoring*; and Measure 3.6-1d *Replacement Tree Monitoring Program*. These measures provide for, among other things, the mapping of trees to be removed and retained at each project site; the identification and protection of retained trees; the use of special construction techniques, such as hand equipment for trenching and/or allowing only one pass through a tree's dripline, when proposed development or other site work must encroach upon the dripline of a preserved tree; all pruning of preserved trees to be performed by a certified arborist and no more than 25 percent of a tree's canopy to be removed; removal of protected trees native to the local area, such as valley oak and coast live oak, to be compensated for at a 3:1 ratio and non-native protected trees to be replaced at a 1:1 ratio with a non-invasive tree species (these ratios apply to projects located within unincorporated Contra Costa County).

It cannot be assumed that any trees on the alternative site would die, fall over or lose a branch as a result of construction activities. Furthermore, EBMUD would guarantee the health of all trees to be preserved in or next to the construction corridor of project-related pipeline and facility sites for three years. If the District constructs or installs improvements or performs approved mechanical excavation within the dripline of any tree, the guarantee period for a tree will be five years. Any tree that is retained but that dies as a result of project construction during the guarantee period would be replaced with a tree of the same species. EBMUD would also implement a tree monitoring program that would apply to all replacement plantings. While the continued health of each tree on or near the project sites cannot be guaranteed, these measures would minimize the potential for tree death or tree fall resulting from project construction.

AH-3 The commenter's opinion about traffic impacts associated with the alternative site for the Tice Pumping Plant is acknowledged. Traffic generated by construction activities would use Olympic Boulevard for either site. Section 3.8 of the DEIR, Traffic and Circulation,

describes the projected traffic, disruption of traffic flows and street operations, and other potential impacts due to construction on the proposed site. The maximum trip generation of about 66 one-way vehicle trips per day (see DEIR Table 3.8-5) would be an increase of less than 0.5 percent of the average daily volume of about 20,900 vehicles on Olympic Boulevard (see DEIR Table 3.8-1); this would be a less-than-significant impact.

Section 3.8 also describes measures to mitigate traffic and circulation impacts. Measure 3.8-1 (DEIR p. 3.8-14) stipulates that the contractor(s) will be required to comply with roadside safety protocols, including "Road Work Ahead" warnings and signs informing drivers of double fines for speed infractions in a construction zone.

Table 6.6 (DEIR p. 6-41) indicates the severity and magnitude of traffic impacts associated with the alternative site relative to impacts of the proposed project. Similar traffic safety protocols would be required for the alternative site as for the proposed site. However, EBMUD staff is not recommending selection of the Tice Pumping Plant alternative site.

AH-4 Refer to **Response AH-1**. The Tice Pumping Plant alternative site was evaluated in DEIR Chapter 6. The DEIR provides information on the Tice Pumping Plant alternative site on pp. 6-40 through 6-42 and pp. 6-64 through 6-65. The level of detail provided is consistent with CEQA requirements for consideration of project alternatives, and presents a side-by-side comparison of impacts at the preferred and alternative sites. Consistent with requirements of the California Environmental Quality Act (CEQA), the District issued a Notice of Availability on June 23, 2006 indicating that the WTTIP DEIR had been published. Comments on the project were accepted starting on that date and continuing until September 18, 2006. Seven public meetings were held on the project at various locations. In addition, District staff met with residents on Freeman Road at their request on September 12, 2006.

AH-5 Please refer to Section 2.1.5, Master Response on Social and Economic Costs.

AH-6 Comment noted. Refer to **Response AH-1**, above.

Comment Letter AL

From: Lyon, Adam [mailto:Adam.Lyon@canaccordadams.com]
Sent: Monday, September 11, 2006 8:22 AM
To: Coleman, John
Subject: Tice Valley Pumping Project

Mr. Coleman

I am writing you this AM to express my extreme concern over EBMUD's proposed possible selection of Site #2 over Site #1 for the Tice Valley pumping project. I am adamantly against Site #2 for 4 main reasons.

1) Destruction of Freeman Rd. property values
2) Environmental impact to the 150yr old tagged historical oak trees on Site #2
3) Waste of tax payer money
4) Site # 2 simply makes no sense

AL-1

I moved to 3300 Freeman Rd. roughly two years ago. Its a beautiful quiet street. Its a place where my children (5 and 7) play everyday with their neighbors in a safe dream world family environment. I am blessed to live on Freeman Rd. and I worked dang hard to get to live there. Recently everyone on the street has been spending significant amounts of capital upgrading their homes and lots(lets also not forget property tax basis') This is especially true in the area immediately behind where EBMUD is now thinking about building this 2300sq ft. Tice Valley pumping plant. EDMUD is said to be buying the lot that this plant would go which will be referred to as Site #2. Will EBMUD also be compensating the impacted Freeman Rd. homeowners for the obvious damage to their property values? I include myself in this camp. This amount for residents will cumulatively be in the millions of dollars!!! That figure will be compounded significantly, if the future value of the property tax stream to the County is considered, as assessed property values will surely decrease due to the negative impact of this project to the whole Freeman Rd. neighborhood.

AL-2

While I am not an arborist, it is clear that the 150 yr old historical oak grove that essentially is Site #2 will be wiped out. I have seen the four 8 ft trees impacted on Site #1. There is no comparison quite frankly. If you have not personally compared these two sites and looked with your own eyes at the potential environmental impact, I encourage you do so immediately. Have you seen an EIR for Site #2? Nobody has, because i suspect it does not exist yet. What about the noise pollution here? That is a whole different story by itself.

AL-3

AL-4

I have reviewed pages of photos, engineered drawings, plans, digital renderings of what the pumping plant will look like in year 1 and what it will look like potentially in year 5. All this stuff was for Site #1. There has been a significant amount of time and tax payer money already spent by EBMUD on assessing Site #1. Nothing has been done yet for Site #2 by EBMUD other than belatedly informing only 2 homeowners on Freeman Rd. via a letter that a massive pumping plant was about to be put right in their backyard with a board vote in a few weeks. What is going on here??

AL-5

Comment Letter AL

Conclusion

Site #1 is located on essentially a small highway which is Olympic Blvd. The plant will be located adjacent to a busy gas station and over 50ft away from the nearest home which also rests right on that same busy Olympic Blvd. Site #1 has minimal environmental impact. Site #1 has had significant time and tax payer capital already invested in its planning. AL-6

Site #2 rests in the middle of one of the oldest oak groves in Contra Costa county. It has had no engineering, architectural, and environmental impact work done or presented to Freeman Rd. residents(tax payers). Site #2 lies directly adjacent to a quiet family neighborhood with numerous million dollar homes who values will be adversely impacted. AL-7

Freeman Rd residents are now fully informed and mobilized together against the Tice Valley pumping plant being built on Site #2. AL-8

The choice/right thing to do by EBMUD seem VERY clear to me.

I look forward to your response.

Regards,

Adam Lyon, CFA

Resident
3300 Freeman Rd.
Walnut Creek, Ca. 94595

2.12 Adam Lyon

AL-1 EBMUD staff is not recommending selection of the Tice Pumping Plant Alternative Site. However, approval of WTTIP projects and project locations is at the discretion of the EBMUD Board of Directors. The comment summarizes issues raised in subsequent comments in the letter (refer to subsequent responses).

AL-2 Please refer to Section 2.1.5, Master Response on Social and Economic Costs.

AL-3 As noted on DEIR p. 6-40, development of the pumping plant at the alternative site would not require removal of any protected trees, although damage to some trees could occur. See **Response AH-2**.

AL-4 The Tice Pumping Plant Alternative site was evaluated in Chapter 6 of the DEIR. The evaluation included an examination of operational and construction noise impacts.

AL-5 The alternative site for the Tice Pumping Plant was evaluated in Chapter 6 of the DEIR. The DEIR provides information on the Tice Pumping Plant alternative site on pp. 6-40 through 6-42 and pp. 6-64 through 6-65. The level of detail provided is consistent with CEQA requirements for consideration of project alternatives, and presents a side-by-side comparison of impacts at the preferred and alternative sites. As stated in **Response AL-1**, EBMUD staff is not recommending selection of the Tice Pumping Plant Alternative Site; approval of WTTIP projects and project locations is at the discretion of the EBMUD Board of Directors. Consistent with requirements of the California Environmental Quality Act (CEQA), the District issued a Notice of Availability on June 23, 2006 indicating that the WTTIP DEIR had been published. Comments on the project were accepted starting on that date and continuing until September 18, 2006. Seven public meetings were held on the project at various locations. In addition, District staff met with residents on Freeman Road at their request on September 12, 2006.

AL-6 The environmental impacts of constructing the pumping plant at the proposed site (south of Olympic Boulevard) are detailed throughout Chapter 3 of the DEIR. See **Response AH-3** regarding the DEIR's analysis of potential traffic and circulation impacts (with identified mitigation measures), and the use of Olympic Boulevard, associated with construction of the Tice Pumping Plant (both the proposed site and alternative site).

AL-7 This comment summarizes comments made earlier in the letter (refer to responses above).

AL-8 The commenter's opposition to the alternative site for the Tice Pumping Plant is noted. See **Response AL-1**, above.

From: ajrothman@comcast.net [mailto:ajrothman@comcast.net]
Sent: Monday, September 18, 2006 8:24 PM
To: Water Treatment Transmission Improvements Program
Cc: mjm393@comcast.net; runbets@comcast.net
Subject: Miner Road Pumping Station

To EBMUD, I Am Alfred J. Rothman at 401 Miner Road Orinda and live next to one of the properties that you propose to build a 1500 square foot pumping station. My wife and I as well as our neighbors are totally against putting an industrial plant in our neighborhood . There is no way to make a plant look like a home and the property you have chosen is much to small to fit such a large structure. I have spoken to the Orinda City Manager and am aware that the city has hired a lawyer to put a stop to this inappropriate attempt to put this plant on our street. Sincerely yours, Alfred J. Rothman

AR-1

AR-2

AR-3

2.13 Alfred Rothman

AR-1 This comment expresses opposition to construction at the Happy Valley Pumping Plant Alternative site. Approval of the site is at the discretion of the EBMUD Board of Directors although staff will recommend approval of construction at the site on Miner Road. In response to concerns expressed in this and other letters commenting on the alternative site, the District has expanded the discussion presented in Chapter 6 of the DEIR to clarify the discussion of environmental impacts (refer to Chapter 3, Text Revisions, in this Response to Comments document).

AR-2 In response to this and similar comments, the District has prepared visual simulations of the Happy Valley Pumping Plant Alternative site. (Refer to Chapter 3, Text Revisions, in this Response to Comments document). The visual simulations show the general appearance (shape, massing, orientation) of a pumping plant. As required by mitigation measures set forth in the DEIR, the pumping plant would be integrated with its surroundings through architectural design features and landscaping. Measure 3.3-2c (DEIR p. 3.3-36) requires that the facility's appearance be visually integrated with its environment. The District would coordinate with neighborhood and local representatives during development of landscape plans (Measure 3.3-2a, DEIR p. 3.3-35).

Refer to Figure 9 in this Response to Comments document for examples of pumping plants designed to blend in with their surroundings.

Please note that the owner of the Happy Valley Pumping Plant Alternative site has submitted an application to the City of Orinda to construct a 1,100 square foot accessory structure at the same location; therefore, the future setting of the site would likely change whether or not the pumping plant is constructed at that location.

AR-3 Comment noted. Comments from the City of Orinda were received and are responded to in this Response to Comments document.

Comment Letter AS

From: Ann Sharf [mailto:Ann@annsharf.com]
Sent: Wednesday, September 06, 2006 11:18 AM
To: Water Treatment Transmission Improvements Program
Subject: Opposed to your expansion!

EBMUD Board of Directors:

As a resident of Orinda, I am opposed to the proposed plan of expansion for the Orinda Filter Plant for the following reasons:

- The Draft EIR that has been submitted is ill conceived and problematic on many levels. AS-1
- There is no clearly stated need or requirement in the Draft EIR as to why EBMUD must upgrade and expand the Orinda Filter Plant. AS-2
- Locating this large and expanding facility in a residential community is impractical, risky and not necessary. AS-3
- Removal of the sports fields will hurt the community and deprive children of much needed recreational playing fields AS-4
- Your proposed expansion is contiguous to an elementary school. AS-5
- Additional structures proposed will be unattractive and will counter the semi-rural charter in the City of Orinda. AS-6
- Camino Pablo is designated a scenic corridor. EBMUD is planning to build multiple multi story buildings and huge storage tanks that will be visible from the corridor and therefore violate the scenic corridor designation. AS-7
- No consideration has been given to new technologies for water treatment that would eliminate the need for large storage tanks and additional buildings for water treatment and storage. AS-8
- Other EBMUD locations have not been considered as part of this Draft EIR. AS-9

There are other EBMUD locations where a filter plant could be constructed or expanded that would have NO impact on the City of Orinda and its residents.

- Our property values will be negatively impacted because of the expansion of the Orinda Filter Plant. AS-10
- The community and its residents and The City of Orinda oppose the expansion of EBMUD's Orinda Filter Plant. AS-11

Sincerely,

Ann Sharf
69 La Campana
Orinda, CA 94563
925-200-0222

2.14 Ann Sharf

AS-1 The comment's opinion regarding the DEIR is noted. Refer to subsequent responses regarding more specific comments on the DEIR presented in this submittal as well as to Section 2.1.1, Master Response on Program- and Project-Level Distinctions.

AS-2 The need for proposed improvements at the Orinda WTP, described in Section 2.2 of the DEIR, is summarized below. Also see Section 2.1.2, Master Response on Benefits to Orinda, as well as **Responses ORIN-10** through **ORIN-17**.

NEED ADDRESSED BY ORINDA WTP IMPROVEMENTS

Facility & Project	Alternatives	Demand	Disinfection Byproduct Rules (Federal)	Surface Water Treatment Rules (Federal)	California Cryptosporidium Action Plan (State)	NPDES Permit (State)	Infrastructure and Technology
Orinda WTP							
Backwash Water Recycle System	1,2				x	x	
Clearwell	2	x					
Los Altos Pumping Plant No. 2	2	x					
Aqueduct	2	x					
Electrical Substation	2	x					
Additional Clearwell [a]	1,2			x			x
High-Rate Sedimentation Units [a]	1,2			x			
Chlorine Contact Basin [a]	1,2		x	x			
Ultraviolet Light Disinfection [a]	1,2		x	x			

[a] Program-level elements.

Excerpt from Table 2-3, as revised in this Responses to Comments document (see Chapter 3 of this document for full, revised table)

AS-3 The DEIR discusses the need for the existing Orinda WTP and proposed improvements. This WTP provides treated water to over 800,000 people, including people living in the Lamorinda community. The Orinda WTP has been located at Camino Pablo and Manzanita Drive since 1936. Over the years, the District has evaluated options for reconfiguring its water treatment and transmission system and has concluded that the Orinda WTP is essential to existing and future operations based on water quality, cost, reliability and operational flexibility (see DEIR p. 6-53 for more details). At the request of the City of Orinda, the District considered various alternatives for relocating or otherwise eliminating the Orinda WTP in the WTTIP DEIR. DEIR Chapter 6 contains a discussion of this screening process, compares the merits of the alternatives and describes the alternatives eliminated from consideration. Construction of a new WTP in a more

remote area is discussed as Alternative A on DEIR pp. 6-53 and 6-54. Two sub-alternatives were evaluated in Scow Canyon and near Briones Dam. These alternatives were eliminated based on feasibility, ability to meet the WTTIP's objectives regarding source water quality and reliability, and environmental impacts. Regarding risk, the comment presumably is referring to the presence of water treatment chemicals at the WTP. Refer to Section 3.11 of the DEIR for a discussion of this issue.

AS-4 The Commenter's concern for the Orinda Sports Field is acknowledged. As noted in **Responses BM-2** and **BM-11**, there is an existing Memorandum of Understanding (MOU) between EBMUD and the City of Orinda covering the use of the Sports Field ("Recreational and Watershed Land Use Policies and the Objectives in the City of Orinda"). Pursuant to the MOU, prior to implementation of any WTTIP elements contemplated for the ballfields area, the City would move the Sports Field operations to a new location within the Montanera development.

AS-5 The DEIR considers the presence of schools, including the Wagner Ranch Elementary School, in the impact evaluations (see, for example, DEIR pp. 3.8-14, 3.9-9, 3.10-39, and 3.11-20). DEIR Map C-OWTP-1 depicts the location of the Orinda WTP relative to the Wagner Ranch Elementary School. The WTTIP includes project-level improvements (evaluated in detail) and program-level improvements (evaluated more generally). Table 2-2 (DEIR p. 2-5) identifies those improvements at the Orinda WTP that are project level and those that are program level. As shown on DEIR Maps D-OWTP-1 and D-OWTP-3, the facilities that would be nearest the Wagner Ranch School are program level, and include a clearwell, Chlorine Contact Basin, and Ultraviolet Disinfection Building (and, under Alternative 2, the entry shaft of the Orinda-Lafayette Aqueduct). The District will determine the need for these program-level elements based on regulatory requirements and further consideration of water management strategies. At that time, EBMUD would conduct the site evaluation, design, and additional environmental review needed to fully assess potential impacts to school children in accordance with CEQA (DEIR p. S-19).

AS-6 DEIR Figures 3.3-OWTP-6 and 3.3-OWTP-7 provide visual simulations of the Backwash Water Recycle System and other proposed facilities at the Orinda WTP. As discussed in Section 3.3 of the DEIR, Visual Quality, the new upgraded facilities proposed at the Orinda WTP would be similar to existing facilities in terms of their physical and aesthetic characteristics and would not result in substantial visual changes to the site's appearance.

AS-7 As per the Orinda General Plan Implementing policy 2.3.2.Q., special care was taken while designing the Orinda Water Treatment Plant upgrades to provide a well landscaped and open feeling along Camino Pablo in order to maintain its scenic value. The proposed backwash water recycling system at the Orinda Water Treatment Plant was designed with generous landscaped setbacks behind existing mature vegetation to blend in with the landscape.

AS-8 Refer to **Responses ORIN-118** through **ORIN-120,** and **Response BM-9**.

AS-9 Refer to **Response AS-3** and the discussion beginning on DEIR p. 6-52, regarding other water treatment plant alternatives considered.

AS-10 Refer to Section 2.1.5, Master Response on Social and Economic Costs.

AS-11 The commenter's opposition to proposed improvements at the Orinda WTP is acknowledged.

Barry Bennett
216 The Knoll
Orinda, California 94563

August 28, 2006

Judy Zavadil
EBMUD Mail Stop # 701
375 Eleventh Street
Oakland, California 94612

Re: Tice Valley Pumping Plant
Draft Environmental Impact Report (SCH #2005092019

Dear Ms. Zavadil:

I am building a home at 300 King Drive, which I hope to move into by the end of the year. My property runs from King Drive down to the cul-de-sac at the end of Olympic Drive frontage road.

I was not aware that the proposed pumping plant would receive water from the existing line on Boulevard Way and then pump water back across Olympic Blvd back to Boulevard Way. I am opposed to the placement of the plant at the end of the cul-de-sac, as it will change the character of the neighborhood. Presently the area is residential and the construction of the plant will require the removal of the trees and the installation of a high retaining wall behind the plant. From the Olympic Drive frontage road you will immediately see the pumping plant and then the gas station. This will change the feeling of the immediate neighborhood from residential more like a commercial area. BB-1

The alternative plan that developed by your staff, near the existing commercial shopping area is a much better location as there will be no need for massive excavation and the removal of numerous trees. Instead the new plant could be constructed back from the road and would not be noticeable. In addition Olympic Blvd. would not need to be torn up for the construction of the pipes going back and forth across the street. BB-2

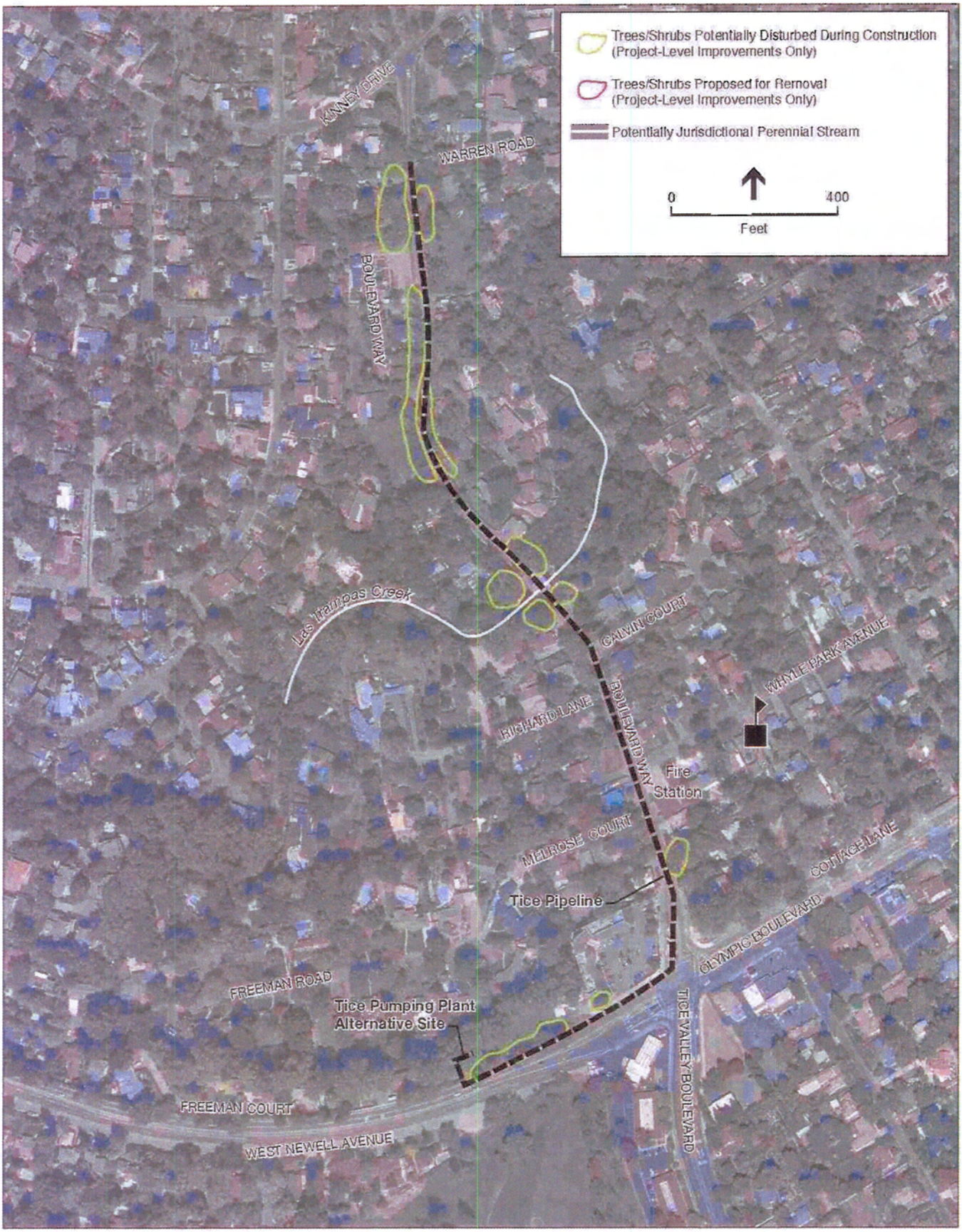
I am enclosing a portion of your report that pertains to the Tice Valley Pumping plant for your review. I have highlighted areas of the report I feel show the alternative site to be a better choice for the location of the pumping plant.. BB-3

Please feel free to call me if you have any questions regarding my opinion of the placement of this pumping plant. My phone numbers are (510) 485-7221 (office) and (510) 719-8948 (cell).

Sincerely,

Barry Bennett

Barry Bennett



SOURCE: ESA; Aerial Photos: Contra Costa County, 2004

EBMUD Water Treatment and Transmission Improvements Program . 204369

Figure 6-7
Tice Pumping Plant Alternative Site

6.9.2 Environmental Impacts

Table 6-6 indicates the severity and magnitude of impacts associated with the alternative site relative to impacts of the proposed project. As shown in the table, development of the pumping plant at the alternative site would not require removal of any protected trees (as indicated in Table 3.6-4, Section 3.6, Biological Resources, the proposed project would require the removal of 7 to 10 protected trees with a diameter at breast height of 6.5 inches or greater). A number of volume-sensitive impacts (e.g., traffic, noise along haul routes, and air quality) would be less under this alternative because there would be less earthwork and construction associated with construction of the pumping plant as the alternative site is flat. The nearest residence to the proposed site is about 200 feet to the west; there are residences located to the east, north, and west of the alternative site. Consequently, construction- and operation-phase noise impacts are considered incrementally worse with the alternative site for the Tice Pumping Plant than under the proposed project but, like the proposed site, could be mitigated to a less-than-significant level with implementation of noise controls (e.g., installation of a noise barrier opening toward Olympic Boulevard) and design considerations (e.g., vent location and transformer facing Olympic Boulevard). In total, the magnitude of over 20 impacts would be less with the alternative site than with the proposed site. Consequently, the alternative site for the Tice Pumping Plant is considerably environmentally superior to the proposed site. As stated above, the owner of the alternative site, Bay Area Rescue Missions, recently received approval to split the parcel into three parcels (Anderson, 2005). Development of the site as a pumping plant could conflict with development plans for the site. If the property owner proceeds with development of the parcel as residences, the site would no longer be a suitable location for a pumping plant.

6.10 Alternatives Screening Process and Alternatives Eliminated

This section summarizes the alternatives screening processes for the WTTIP, discusses the screening criteria used, and identifies alternatives that were eliminated. Scores of alternatives have been considered, many of which were eliminated based on inability to meet most of the project's basic objectives, infeasibility, or inability to reduce the project's environmental impacts. Sources of alternatives to be considered included background reports prepared for the WTTIP, suggestions made in responses to the NOP and at public meetings held for the WTTIP, and EIR preparers (based on the environmental impacts described in Chapter 3). Background reports used to develop potentially feasible alternatives that could meet the objectives of and engineering constraints associated with the WTTIP projects include the *Lamorinda Water System Improvement Program Facilities Plan* (Facilities Plan) (EBMUD, 2005a, 2006) and related reports, draft Pressure Zone Planning Program (PZPP) studies (EBMUD, 2003a, 2003b, 2004, and 2005b–2005f), and the *Draft Water Treatment and Transmission Improvements Program Lamorinda Tunnel Conceptual Study* (Jacobs Associates, 2005).

Consistent with CEQA, a major factor in considering potential alternatives is the environmental impacts associated with a proposed project. As described throughout Chapter 3, implementation of either Alternative 1 or Alternative 2 would result in numerous significant impacts. The severity

Comment Letter BB

TABLE 6-6
COMPARISON OF PROPOSED TICE PUMPING PLANT AND PIPELINE PROJECT WITH TICE PUMPING PLANT ALTERNATIVE

Impacts	Tice Pumping Plant and Pipeline	Tice Pumping Plant and Pipeline Alternative	Discussion
Land Use, Planning, and Recreation			
Divide an Established Community	LTS	LTS=	Like the proposed site, the alternative site would not divide an established community or affect agricultural resources. The owner of the alternative site, Bay Area Rescue Missions, recently received approval to split the parcel into three parcels (Anderson, 2005). Development of the site as a pumping plant could conflict with development plans for the site. This alternative would avoid disruption of the trail adjacent to the proposed site.
Agricultural Resources Impacts	--	--	
Recreation Resources Impacts	LTS	LTS–	
Visual Quality			
Short-Term Visual Effects during Construction	LTS	LTS–	The alternative site is less visible than the proposed site and is well screened from most directions by trees that would preserved. Development of the proposed site would require modification of a hillside adjacent to a trail and removal of 10 trees. The alternative site is flat, largely screened from the trail and Olympic Boulevard, and would not require removal of trees. Consequently, the magnitude of impacts to visual quality would be less.
Alteration of Appearance of WTTIP Sites	SM	LTS–	
Effects on Views	SM	LTS–	
Effects on Scenic Vistas	LTS	LTS–	
New Sources of Light and Glare	SM	SM=	
Geology, Soils, and Seismicity			
Slope Stability	SM	LTS–	The proposed site is located at the foot of a moderate- to steep-sloping hillside with evidence of soil instability. The alternative site is flat. Soil characteristics, groundshaking potential, and liquefaction susceptibility are otherwise similar between the sites.
Groundshaking	SM	SM=	
Expansive Soils	SM	SM=	
Liquefaction	SM	SM=	
Squeezing Ground	--	--	
Hydrology and Water Quality			
Degradation of Water Quality during Construction	SM	SM=	Hydrology and water quality issues would be similar under the proposed project and this alternative because the site is in the same area, would require similar construction, and would result in a similar net change in impervious surfaces. The alternative pumping plant would be constructed in a zone of minimal flood hazards (a 500 year flood zone or an area where the depth of the 100-year would be less than one-foot). Although this would not be significant, there would be a minimal increase in flood hazards.
Groundwater Dewatering	LTS	LTS=	
Diversion of Flood Flows	SM	SM+	
Discharge of Chloraminated Water during Construction	--	--	
Operational Discharge of Chloraminated Water	--	--	
Change in Impervious Surfaces	LTS	LTS=	
Biological Resources			
Loss of or Damage to Protected Trees	SM	SM–	The alternative site (shown in Figure 6-7) is within a rectangular-shaped field bordered on most sides by trees, primarily valley oaks. A small seasonal drainage ditch supporting valley oaks and other riparian tree species borders the northern portion of the site. With the exception of some disturbance within the dripline of several of the larger valley oaks, the ditch and riparian habitat could be avoided by construction activities. The site would be accessed from Olympic Boulevard either at the west end of the parcel or through a gap in the trees along Olympic Boulevard; the alternative site is incrementally less favorable to wildlife (the
Degradation to Streams, Wetlands, and Riparian Habitats	SM	SM=	
Loss of or Damage to Special-Status Plants	SM	SM–	
Disturbance to Special-Status Birds	SM	SM–	
Disturbance to Special-Status Bats	SM	SM–	
Disturbance to San Francisco Dusky-Footed Woodrat	LTS	LTS=	
Degradation of Special-Status Aquatic Species Habitat	SM	SM=	
Disruption to Wildlife Corridors	LTS	LTS–	

[a] Impacts summarized; please see Chapter 3 for details.

LTS = Less Than Significant
SM = Significant and Mitigable
SU = Significant and Unavoidable
– = Impact does not apply
CBD = Cannot Be Determined

\+ Impact would be greater under this alternative than under the proposed project.
– Impact would be less under this alternative than under the proposed project.
= Impact would be the same (or similar) under this alternative as under the proposed project.

TABLE 6-6 (Continued)
COMPARISON OF PROPOSED TICE PUMPING PLANT AND PIPELINE PROJECT WITH TICE PUMPING PLANT AND PIPELINE ALTERNATIVE

Impacts	Tice Pumping Plant and Pipeline	Tice Pumping Plant and Pipeline Alternative	Discussion
Biological Resources (cont.)			proposed site is contiguous with an open space area). (Potential impacts to aquatic species like red-legged frog are associated with the pipeline alignment, which is the same under the project and the alternative.)
Cultural Resources			
Archaeological Resources, including Unrecorded Cultural Resources	SM	SM=	There are no known cultural resources at the alternative site. Like the proposed project, this alternative could result in the discovery of unrecorded resources.
Paleontological Resources	SM	SM=	
Historic Settings	–	–	
Traffic and Circulation			
Increased Traffic	SM	SM–	The estimated maximum number of one-way trips per day would less for the alternative site relative to the proposed site because there would be considerably less earthwork and less construction (e.g., no retaining wall would be needed). Impacts to travel lanes on Olympic Boulevard would also be less than with the proposed site because there would be less pipe installed in the road. The alternative site provides more space for off-street parking. Otherwise, traffic and circulation impacts would be the same as for the proposed project.
Reduced Road Width	SM	SM–	
Parking	SM	SM–	
Traffic Safety	SM	SM–	
Access	SM	SM=	
Transit	SU	SU=	
Pavement Damage/Wear	SM	SM–	
Air Quality			
Construction Emission	SM	SM–	The haul route for the alternative site would be the same as for the proposed site. Construction-related emissions, including diesel particulate, would be less under the alternative because less excavation would occur.
Diesel Particulate Emissions along Haul Routes	LTS	LTS–	
Tunnel-Related Emissions	–	–	
Operational Pollutant Emissions at Treatment Facilities	–	–	
Operational Odor Emissions	LTS	LTS=	
Secondary Emissions from Electricity Generation	LTS	LTS=	
Noise and Vibration			
Construction Noise Increases	SM	SM+	The nearest residence to the proposed site is about 200 feet to the west; there are residences located to the east, north, and west of the alternative site. Like the project, implementation of noise controls and installation of a noise barrier (opening toward Olympic Boulevard) would reduce construction noise to a less-than-significant level. Operational phase noise impacts could be greater with the alternative site than with the proposed project because of the proximity of multiple residences, but design considerations (e.g., vent location) would ensure that operational-phase noise is less than significant.
Noise Increases along Haul Routes	LTS	LTS=	
Construction-Related Vibration Effects	SM	LTS=	
Operational Noise Increases	SM	SM+	
Accidental Release during Operation	–	–	

[a] Impacts summarized; please see Chapter 3 for details.

LTS = Less Than Significant
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\+ Impact would be greater under this alternative than under the proposed project.
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= Impact would be the same (or similar) under this alternative as under the proposed project.

Comment Letter BB

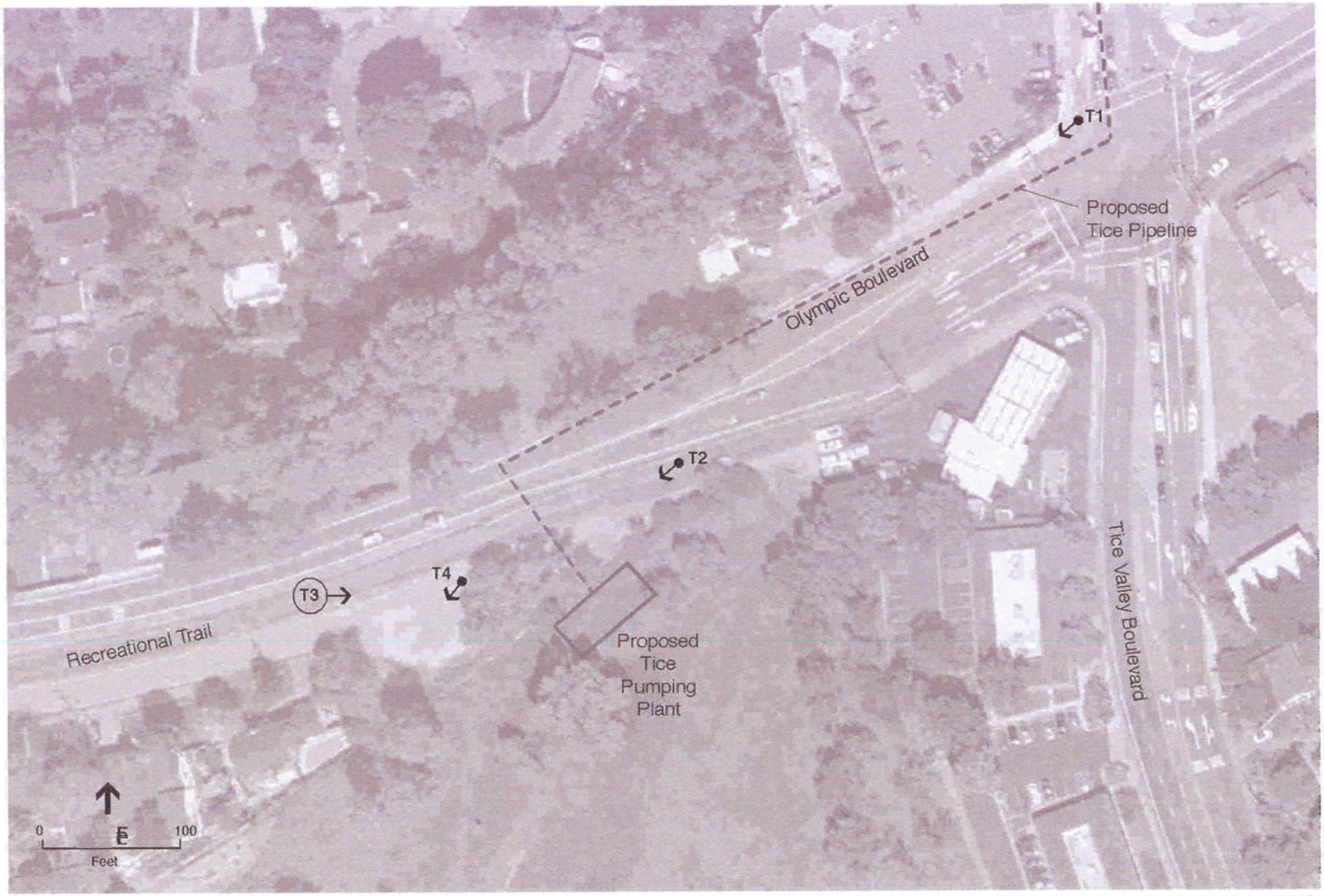
TABLE 6-6 (Continued)
COMPARISON OF PROPOSED TICE PUMPING PLANT AND PIPELINE PROJECT WITH TICE PUMPING PLANT AND PIPELINE ALTERNATIVE

Impacts	Tice Pumping Plant and Pipeline	Tice Pumping Plant and Pipeline Alternative	Discussion
Hazards and Hazardous Materials			
Hazardous Materials in Soil and Groundwater	SM	SM–	The alternative pumping plant location would be located farther from known leaking underground storage tank sites with a related decrease in the potential to encounter hazardous materials in the soil and groundwater. The alignment for the Tice Pipeline up Boulevard Way would be the same under the alternative (and is proximate to a high-priority utility). Hazards and hazardous materials impacts would be the same as for the proposed project.
Hazardous Building Materials	--	--	
Gassy Conditions in Tunnels	--	--	
High-Pressure Gas Line Rupture	SM	SM=	
Wildland Fires	--	--	
Release from Construction Equipment	LTS	LTS=	
Public Services and Utilities			
Disruption of Utility Lines	SM	SM–	Disruption of utilities would be incrementally less for the alternative site because existing PG&E facilities at the proposed site would not require relocation and there would be less pipeline installation in Olympic Boulevard. There would be less excavation and more room to spoil onsite (and, therefore, possibly less soil off-hauled).
Increase in Electricity Demand	LTS	LTS=	
Increase in Public Services Demand	LTS	LTS=	
Adverse Effect on Landfill Capacity	SM	SM–	
Failure to Achieve State Diversion Mandates	SM	SM–	

[a] Impacts summarized; please see Chapter 3 for details.

LTS = Less Than Significant
SM = Significant and Mitigable
SU = Significant and Unavoidable
– = Impact does not apply
CBD = Cannot Be Determined

\+ Impact would be greater under this alternative than under the proposed project.
– Impact would be less under this alternative than under the proposed project.
= Impact would be the same (or similar) under this alternative as under the proposed project.



SOURCE: Environmental Vision

1 → Photo Viewpoint

3 → Simulation Viewpoint

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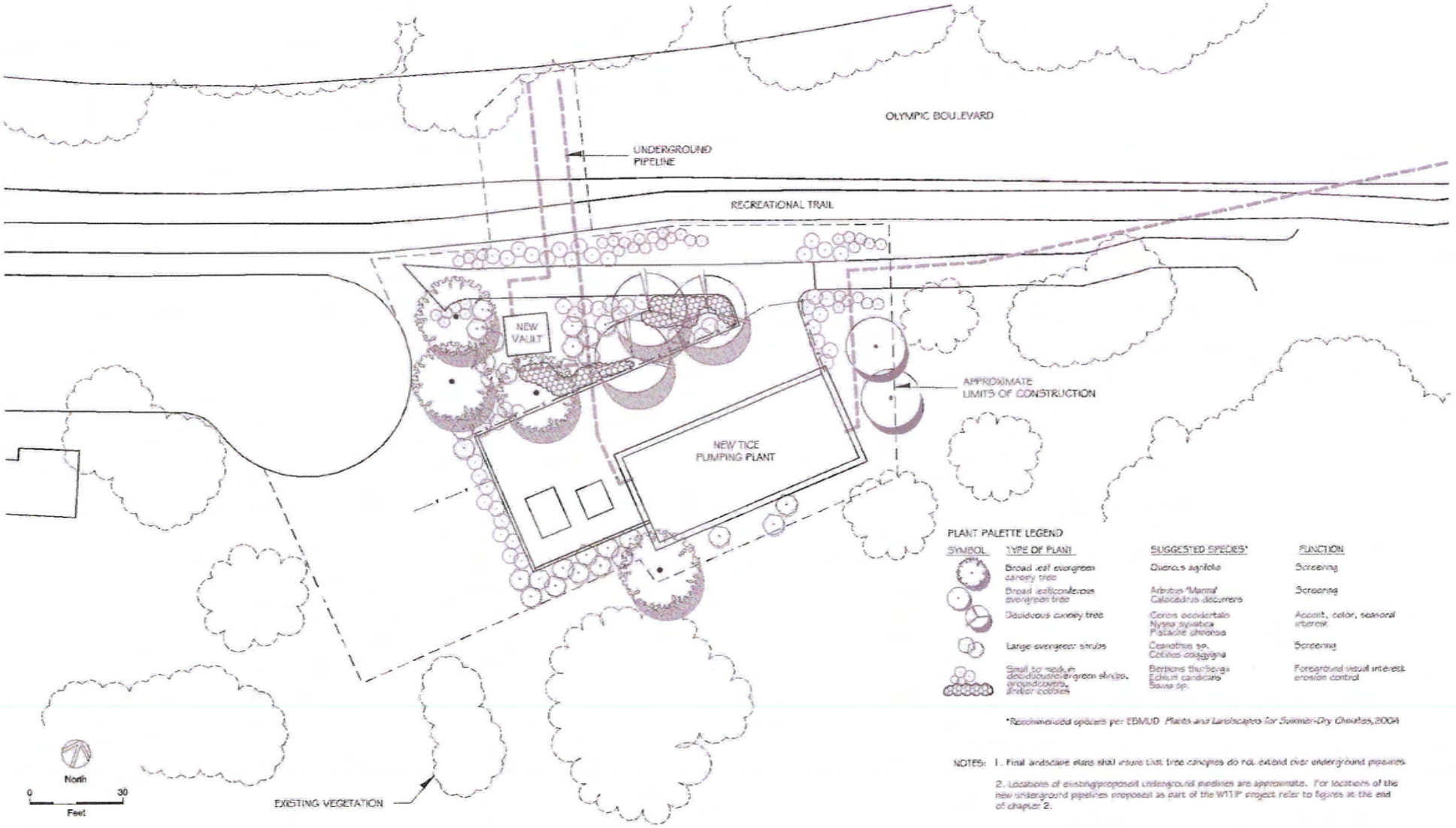
Figure 3.3-TICEPP-1
Location of Photo Viewpoints - Tice Pumping Plant Site



SOURCE: Environmental Vision

EBMUD Water Treatment and Transmission Improvements Program . 204389

Figure 3.3-TICEPP-3
Conceptual Landscape Plan - Tice Pumping Plant

T1. Looking southwest from Olympic Boulevard at Tice Valley Boulevard

T2. Looking southwest from Recreational Trail

T3. Looking east from Recreational Trail *

T4. Looking southwest toward adjacent homes

SOURCE: Environmental Vision

*Simulation Photo

For Viewpoint Locations Refer to: Figure 3.3-TICEPP-1

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Figure 3.3-TICEPP-2

Photographs of Tice Pumping Plant Site and Surroundings

Existing View looking east from Recreational Trail

Visual Simulation of Proposed Improvements without landscaping

For Viewpoint Location Refer to: Figure 3.3-TICEPP-1

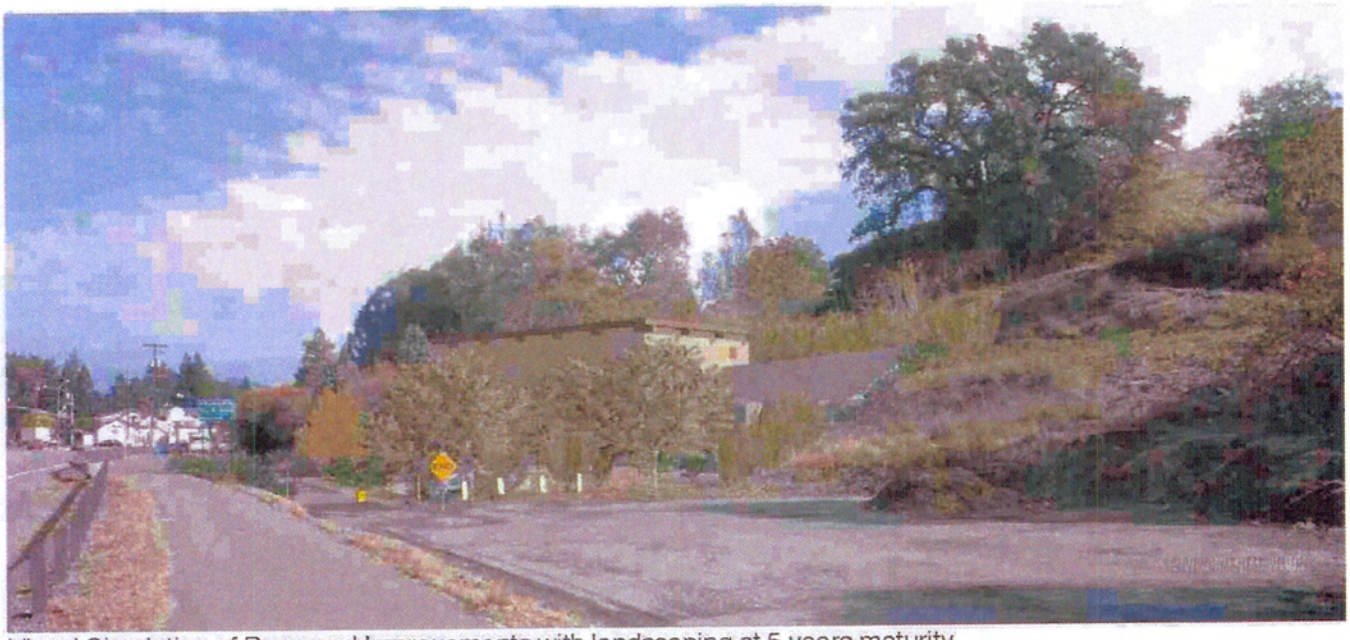
SOURCE: Environmental Vision

EBMUD Water Treatment and Transmission Improvements Program . 204369

Figure 3.3-TICEPP-4

Visual Simulation without Landscaping – Tice Pumping Plant Site

Existing View looking east from Recreational Trail



Visual Simulation of Proposed Improvements with landscaping at 5 years maturity

For Viewpoint Location Refer to: Figure 3.3-TICEPP-1

EBMUD Water Treatment and Transmission Improvements Program . 204369

SOURCE: Environmental Vision

Figure 3.3-TICEPP-5

Visual Simulation with Landscaping – Tice Pumping Plant Site

2.15 Barry Bennett

BB-1 EBMUD acknowledges the commenter's opposition to the proposed site for the Tice Pumping Plant (described on DEIR p. 2-82). To address the commenter's concerns, EBMUD plans to modify the layout and design of the proposed pumping plant. The structural footprint will be moved to the northwest to reduce hillside excavation and the number of trees removed. In addition, a portion of the pumping plant (5-10 feet) will be constructed below ground to reduce visual impacts. As required by Measures 3.3-2a through 3.3-2c (DEIR pp. 3.3-35 and 3.3-36), the pumping plant would be integrated with its surroundings through landscaping and architectural design features. In implementing Measure 3.3-2, EBMUD will coordinate with neighborhood representatives during development of landscape plans and architectural design. For examples of pumping plants designed to blend in with residential neighborhoods, refer to **Response CN-3** and Figure 9 in Section 2.27 of this Response to Comments document.

BB-2 EBMUD staff is recommending the proposed site south side of Olympic Boulevard for approval by the EBMUD Board of Directors. The proposed site is recommended in part because it has fewer nearby residences that would be directly affected by the construction and operation of the plant in comparison to the alternative site north of Olympic Boulevard.

BB-3 As part of the CEQA analysis on this complex project, EBMUD must balance a variety of competing considerations. The number of neighboring residences was among the considerations for this project component. This is one of the reasons EBMUD staff is recommending the proposed site south side of Olympic Boulevard for approval by the EBMUD Board of Directors.

Ms. Judy Zavadil
Senior Project Manager
EBMUD
Mail Slot #701
375 Eleventh Street
Oakland, CA 94623

Dear Ms. Zavadil:

First of all, thank you for meeting with Dr. and Mrs. Rothman, Mr. Moran, and me on August 29, 2006, at the Alternative No. 2 site in Orinda at Miner Road and Camino Sobrante between the properties of 393 and 401 Miner Road. Our home is located at 400 Miner Road across the street. BJT-1

After careful study of the Draft Environmental Impact Report (EIR) for the EBMUD Water Treatment and Transmission Improvements Program, we are registering our opposition to your department's consideration of this site for an alternative to the proposed **preferred** Happy Valley Pumping Plant site located on Lombardy Lane. It seems Alternative No. 2 is being approached, for the most part, only due to public outcry. It is by no means any less environmentally important than that of the preferred site. This site, however, is definitely more visible than the preferred site, as well as, Alternative No. 1, a vacant parcel located at 1 Miner Road. If EBMUD is set on constructing a pumping plant at either of these locations, for that matter, it should initiate more studies regarding possible loss of property values. The best alternative at this time may be that of the "No Build" alternative and for EBMUD to explore other ways to achieve the goal of more efficient means of treating and pumping water through less residential areas. BJT-2 BJT-3 BJT-4

Given the *need* to construct a new pumping plant in this area, EBMUD chose the Happy Valley Pumping Plant Alternative as its preferred site for valid reasons. Its size and shape lend itself to a better site and, even though, more protected trees would need to be removed, it appears this proposed plant would ultimately result in less of an impact (visually, sound-wise, or otherwise) than the other alternatives. Through visual simulation, the preparers of the Draft EIR have shown, with proper landscape mitigation, the proposed pumping plant would hardly be visible from the street. However, we believe EBMUD is leaning toward abandoning this site solely because there are more voices to be heard against it. These voices are, perhaps, persuading the present property owner not to sell the site to avoid dealing with the neighbors. So, a house may be built on that site instead? BJT-5

Alternative No. 1 at 1 Miner Road between Camino Don Miguel and Oak Arbor Road is being put aside because of slide issues, protected tree issues and greater impacts on neighbors during construction . This piece of property has been vacant for years. The present owners graded it and built a bridge in hopes to sell it as a home site. As a result, it was put on the market and remained unsold for several years. My question to EBMUD is why would that site be suitable for a home rather than a pumping plant which is properly BJT-6

engineered and aesthetically disguised to look like one? As discussed in the Draft EIR, this site would require more excavation, a retaining wall, landscape mitigation, bridge maintenance, and a bridge for additional pipe. All of these issues, with the possible exception of the bridge for a pipe (which could be installed under or attached to the existing or reinforced bridge), need to be addressed to build a home. As far as disrupting the neighbors during construction, we, who live adjacent to the Alternative No. 2 site would be disrupted both during and after construction – more so than at either the preferred or Alternative No. 1 sites. As it stands, we are going to be disrupted along Miner Road between Camino Pablo and Lombardy Lane in the near future by P.G. &E when transmission lines will be upgraded and installed under ground. In addition, there are plans to upgrade the sewers. BJT-6 BJT-7

Riparian issues were mentioned as a possible reason to abandon the Happy Valley site. Both alternatives have riparian issues, so I do not see the rationale in this reason. BJT-8

Alternative No. 2 is also smaller than the preferred site. At the preferred site, a pumping plant could be set back adequately so as to not be as visible from the street or neighbors. As discussed in the Draft EIR, alteration of this alternative site would be more visually prominent with visual impacts "incrementally" worse than those at the preferred site. However, there would be a greater impact on protected trees at the preferred site. If there is such a great need for this pumping plant, suitable mitigation planting can be installed at the Happy Valley site to address this concern. In addition, the Draft EIR points out that development of this alternative site would require dividing a residential parcel. BJT-9

If EBMUD is to more seriously consider Alternative No. 2 as a site for its pumping plant rather than the preferred Happy Valley site on Lombardy Lane, it would need to provide more information on possible decline in property values which would only come from studies investigating this issue. A more descriptive environmental report including more detailed landscape mitigation measures would be necessary. EBMUD should either remain firm on its preferred Happy Valley Pumping plant site on Lombardy Lane or go back to the drawing boards and design and engineer a better solution to pump water to Lafayette than to disrupt our residential area. BJT-10 BJT-11 BJT-12

Sincerely,

Betsy Barsamian Teman
Joseph Teman
400 Miner Road
Orinda, CA 94563

2.16 Betsy and Joseph Teman

BJT-1 Comment acknowledged.

BJT-2 This comment expresses opposition to construction of the Happy Valley Pumping Plant Alternative site. As indicated in **Comment RCW-1**, the owners of the Lombardy Lane parcel are not willing to sell their property to EBMUD; as indicated in **Comment TU-1**, the owner of the alternative site for the pumping plant is receptive to discussing the sale of a portion of his property. Accordingly, District staff is recommending that the Board of Directors approve the alternative site for the Happy Valley Pumping Plant (on Miner Road), which could be purchased from a willing seller.

In response to concerns expressed in this and other letters commenting on the alternative site, the District has expanded the discussion presented in Chapter 6 of the DEIR to clarify the discussion of environmental impacts (refer to Section 3.4, of this Response to Comments document). Refer to **Response BJT-6,** below, regarding rejection of the alternative site at 1 Miner Road.

BJT-3 Refer to Section 2.1.5, Master Response on Social and Economic Costs.

BJT-4 A "no-build" alternative would fail to meet the purpose of and need for the Happy Valley Pumping Plant and Pipeline project and would result in degradation in water service to residences in the Las Aromas Pressure Zone (parts of Lafayette and Orinda north of Highway 24 and east of Camino Pablo; see Figure 2 in this Response to Comments document). The various alternatives considered for the Happy Valley Pumping Plant, and the reasons each was rejected, are described on DEIR pp. 6-61 and 6-62. Refer also to Section 2.1.4, Master Response on the Need for and Alternatives to the Happy Valley Pumping Plant and Pipeline.

BJT-5 Comment noted. As noted in these responses and the DEIR, the District seeks to acquire property from willing sellers. Approval of the ultimate site is at the discretion of the Board of Directors. Please note that the owner of the Happy Valley Pumping Plant Alternative site has submitted an application to the City of Orinda to construct a 1,100 square foot accessory structure at the same location, therefore, the future setting of the site could change significantly whether or not the pumping plant is constructed at that location.

BJT-6 The comment asks, "why would that site [on Miner Road between Camino Don Miguel and Oak Arbor Road] be suitable for a home [but not] a pumping plant"?

For reasons stated in the bullet point on DEIR p. 6-62, EBMUD eliminated the site as a potential location for the Happy Valley Pumping Plant based on the basis of construction and environmental impacts. The 1 Miner Road site may have been vacant for years because of the same issues that contributed to its elimination as a potential pumping plant site: the presence of a landslide, the location of the creek on the parcel,

and the existing topography. (After DEIR publication, the site at 1 Miner Road was revisited by project engineers who reaffirmed that the site has experienced past slope failure and could be susceptible to future slope failure.)

BJT-7 EBMUD is committed to working with other agencies planning improvements along Miner Road and other proposed pipeline alignments to minimize community disruption. EBMUD has successfully coordinated with agencies such as PG&E and Central Contra Costa Sanitary District in the past on in-street, underground projects. The Happy Valley Pipeline is scheduled for construction in 2011, so EBMUD may have up to five years to coordinate with other agencies.

BJT-8 As described in the DEIR (pp. 3.6-37 and 6-36), development at either site could adversely affect riparian areas and, for that resource, the DEIR found no substantial difference in the impacts between the DEIR Proposed site and Alternative site. DEIR pp. 3.6-39 through 3.6-41 describe the detailed measures that the District would adopt as conditions of project development to reduce or avoid impacts to riparian habitat. Refer to **Response BJT-2** regarding District staff preference for the Happy Valley Pumping Plant Alternative site.

BJT-9 DEIR p. 6-36 assumed that all of the trees along Miner Road would need to be removed in order to construct the Happy Valley Pumping Plant at the alternative site; that assumption was incorrect.

In response to this and similar comments, the District has prepared visual simulations of the Happy Valley Pumping Plant Alternative site. Refer to Section 3.4, Supplemental Analysis of the Happy Valley Pumping Plant Alternative Site, in this Response to Comments document. The visual simulations show the general appearance (shape, massing, and orientation) of the pumping plant. As required by mitigation measures set forth in the DEIR, the pumping plant would be integrated with its surroundings through architectural design features and landscaping. Measure 3.3-2c (DEIR p. 3.3-36) requires that the facility appearance be integrated with its environment. The District would also coordinate with neighborhood representatives during development of landscape plans (Measure 3.3-2a, DEIR p. 3.3-35). Refer to **Response CN-3**, Figure 9, for examples of pumping plants designed to blend in with their surroundings.

The DEIR states that damage may occur to protected trees at the DEIR Proposed Happy Valley Pumping Plant site, and sets forth mitigation measures in Section 3.6 of the DEIR to minimize potential impacts to protected trees (see Table 3.6-5, DEIR p. 3.6-31). These measures include: Measure 3.6-1a, Tree Protection Measures During Construction; Measure 3.6-1b, Protected Tree Pruning and Replacement; Measure 3.6-1c, Protected Tree Monitoring; and Measure 3.6-1d, Replacement Tree Monitoring Program. These measures provide for, among other things, the mapping of trees to be removed or retained at each project site; the identification and protection of retained trees; the use of special construction techniques, such as hand equipment for trenching and/or allowing

only one pass through a tree's dripline, when proposed development or other site work must encroach upon the dripline of a preserved tree; all pruning of preserved trees to be performed by a certified arborist and no more than 25 percent of a tree's canopy to be removed; removal of protected trees native to the local area, such as valley oak and coast live oak, to be compensated for at a 3:1 ratio and non-native protected trees to be replaced at a 1:1 ratio with a non-invasive tree species.

EBMUD will guarantee the health of all trees to be preserved within and adjacent to the construction corridor of project-related pipeline and facility sites for three years. If the District constructs or installs improvements or performs approved mechanical excavation within the dripline of any tree, the guarantee period for a tree will be five years. The District will replace any retained tree that dies as a result of construction activities during the guarantee period with a tree of the same species. EBMUD will also implement a five year tree monitoring program that will apply to all replacement plantings. While no one can guarantee the continued health of each tree, these mitigation measures will minimize damage to trees in or near construction areas and will therefore minimize the potential for tree death.

As discussed in **Response BJT-1**, EBMUD staff is recommending that the Board of Directors approve the Happy Valley Pumping Plant Alternative site, which could be purchased from a willing seller. Impacts to trees at the Happy Valley Pumping Plant Alternative site were analyzed as less severe than impacts at the DEIR Proposed Happy Valley Pumping Plant site in Table 6-5 on DEIR p. 6-36. The site plan (Figure 22) and aerial photo (Figure 21) showing potential tree disturbance and removal at the Happy Valley Pumping Plant Alternative site are included in Chapter 3, Text Revisions, in this Response to Comments document, along with text discussing impacts at the Happy Valley Pumping Plant Alternative site.

The comment correctly states that development of the Happy Valley Pumping Plant at the alternative site would divide a residential parcel.

BJT-10 Refer to Refer to **Response BJT-3**, above, as well as Section 2.1.5, Master Response on Social and Economic Costs.

BJT-11 Additional text regarding the Happy Valley Pumping Plant Alternative site is included in Chapter 3, Text Revisions, in this Response to Comments document. A conceptual landscape plan is also included in Chapter 3.

BJT-12 Refer to **Response BJT-5** (reasons District staff is recommending approval of the alternative site). As stated in **Response BJT-4**, the District has considered numerous options for addressing the lack of pumping capacity serving the Las Aromas Pressure Zone and has concluded that a new pumping plant is needed. Pursuant to Measure 3.3-2a (DEIR p. 3.3-35), the District is committed to coordinating with neighborhood representatives and the City of Orinda when developing design elements and landscaping to enhance the aesthetic appearance of the plant and to integrate it with its environment.

Comment Letter BM

7 Stanton Court
Orinda, CA 94563

10 August 2006

RECEIVED
AUG 14 2006
WATER SERVICE PLANNING

East Bay Municipal ~~Water~~ Utility District
attn: Judy Zavadil
375 11th Street
Mail stop 701
Oakland, CA 94607-4240

RE: Response to draft Environmental Impact Report, EBMUD Water Treatment and Transmission Improvements Program

To whom it may concern:

I live in Orinda in the area directly to the west of the Orinda EBMUD water treatment plant. My daughter and her friends attended Wagner Ranch Elementary School. We frequently use the sports field adjacent to the school site. I am concerned about the projects planned by EBMUD in the Orinda area. The major structures you want to build at their treatment plant and on the sports field are unacceptable. They will result in the loss of the sports field, which is the only such area available on the north side of Orinda. The structures will be eyesores. I expect that the projects will lower property values in the area. And there appears to be little or no benefit to those of us that live in Orinda from this project. BM-1 BM-2 BM-3

I have reviewed the draft EIR submitted by EBMUD, which supports my concerns. The DEIR provides little justification for any part of EBMUD's proposed project or program elements. It only considers a few alternatives, and inadequately dismisses most. For the chosen alternatives, it is unclear exactly what is being proposed, what elements are project-level and which are program-level, and how decisions on program level projects will be decided. It would appear that program-level projects could go forward with little or no further public input or oversight. BM-4 BM-5 BM-6

Stated justifications include compliance with current and future water regulations. With respect to Safe Drinking Water Act compliance, EBMUD is generally in compliance with current regulations. There is no reason to believe that they will not be compliant with future regulations with their current facilities and operations covered under this DEIR. Projected USEPA and CA DHS regulations that would require implementation and compliance over the next 10-15 years are unlikely to significantly affect EBMUD's water treatment operations at the facilities discussed in this EIR. The source water from the Mokulumne River is high quality, low in organic carbon and pathogens. For a surface water, it is easily treatable and produces low levels of disinfection byproducts. Beyond the new Stage 2 Disinfectant Byproducts Rule and the Long-term 2 Enhanced Surface Water Treatment Rule, the only regulation on the horizon that might have an impact is a possible distribution system regulation. This distribution system rule is likely to address operations and maintenance issues well beyond the treatment plants. If BM-7 BM-8

EBMUD has considerations about compliance with these regulations, it should describe them in detail, and discuss the full range of treatment and operational alternatives that could be successfully used. BM-8

While improvements in treatment to provide even-safer water are laudable, a number of approaches are common within the industry, yet were not among the alternatives considered. As a whole, the DEIR does not show much appreciation for the treatment alternatives that could successfully meet water quality and regulatory drivers. For example, use of ultraviolet light as part of the primary treatment train to inactivate *Cryptosporidium, Giardia* and other microbial pathogens is practical, and would be unobtrusive for both the Orinda and Lafayette water treatment plants. Use of UV disinfection would allow modification of EBMUD's use of chloramine as a residual disinfectant, and probably eliminate the need for the clearwells proposed for Lafayette, for Manzanita Road and for the Orinda sports field. UV disinfection was discussed with respect to filter backwash treatment, indicating that EBMUD is willing to entertain that technology. BM-9

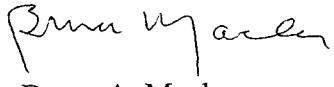
Membrane filtration was discussed as a treatment alternative for the Lafayette WTP, and acknowledged in the DEIR to be a superior and feasible alternative, but was rejected for no apparent reason beyond EBMUD's lack of experience with it. A number of utilities in California are successfully using this technology. BM-10

Beyond the limited consideration of treatment alternatives, project and program siting alternatives were also inadequately discussed. For example, even if it were needed, the large clearwell proposed for the sports field could be sited on EBMUD property to the north of Bear Creek Road. It would be far less visually intrusive and the sports field would remain available to Orinda. BM-11

The project purports to improve, in part, the seismic safety of the water system. However, it only addresses a portion of the likely problems resulting from a major earthquake. The Bay Area drinking water community, including EBMUD staff, is aware that a major earthquake on the Hayward fault would result in 1000's of leaks in local distribution systems and the inability to deliver safe drinking water for a substantial time. Benefits that could help Orinda and its neighboring communities would include upgrades to residential storage and distribution to improve their integrity and survivability to a major earthquake. These are not at all addressed or proposed here. BM-12

The DEIR is inadequate as written and merits substantial expansion to provide detail. In addition, the thinking behind the proposed alternatives should be reconsidered and additional alternatives brought forward. I hope that EBMUD will rethink their options for their water system upgrades to show more imagination and to better consider those that live in the communities they serve. BM-13

Sincerely,



Bruce A. Macler
925 253-9592

2.17 Bruce Macler

BM-1 The commenter's opinion that WTTIP projects proposed in Orinda are unacceptable is noted. The District owns the land occupied by the Sports Field and leases it to the City of Orinda. There is an existing MOU between EBMUD and the City of Orinda addressing the use of the Orinda Sports Field (regarding "Recreational and Watershed Land Use Policies and Objectives in the City of Orinda"). As stated in the MOU "The City's current use of the Camino Pablo property for recreation fields will terminate when new recreational facilities to be constructed on the Gateway property are complete and ready for public use." The MOU states that the District agrees to defer projects that preclude City of Orinda use of the property where the Orinda Sports Field is located until the new sports fields at the Montenara/Orinda Gateway development (on land formerly owned by EBMUD) are complete. The MOU further states that the Montenara fields must be complete within five years of the MOU signing date (June 30, 2005). If they are not complete by June 30, 2010 but diligent efforts are being made by the City of Orinda to complete construction, then the agreement will be extended by a year (to June 2011). An additional one-year extension (to June 2012) would be granted under the same circumstances, after which the MOU could be renewed only by written agreement. Under either Alternative 1 or Alternative 2, the District may need to construct several facilities in the area now used as the Orinda Sports Field, but the earliest construction of such facilities would be June 2014 (see Table 2-8, DEIR p. 2-58). If the District does not move forward with any projects on the Camino Pablo property by the time the MOU expires, the City of Orinda will have the option to renew a lease to continue use of the sports field at the Camino Pablo property on terms mutually agreed upon by the City and the District.

It is acknowledged that the Orinda Sports Field is the only playing field on the north side of Orinda (north of Highway 24).

BM-2 The program-level facilities that could be located within what is currently the Orinda Sports Field and parking area include a clearwell, a chlorine contact basin, and an ultra-violet light disinfection facility. As indicated in the DEIR (p. 3.3-49), these structures as presently planned would be low profile but would require removal of some vegetation). DEIR Section 3.3, Visual Quality, describes the existing visual conditions at and near the Orinda WTP and evaluates potential project effects on visual resources and public view corridors. Visual quality impacts associated with program-level elements will be analyzed in detail during project-level CEQA review. Under Alternative 2, the project-level Orinda-Lafayette Aqueduct tunnel entry portal, would also be constructed at the Orinda Sports Field site. This facility would have minimal visual impacts after construction. Regarding the comment about property values, refer to Section 2.1.5, Master Response on Social and Economic Costs.

BM-3 The overall benefits of the WTTIP are described briefly on DEIR p. 2-23. All of the WTTIP improvements would make the EBMUD system more reliable, which would

benefit all District customers. The improvements to reduce microbial pathogens and to control disinfection byproducts are proposed at all of the regularly operated WTPs and therefore represent an added health benefit to all EBMUD treated-water customers. Improvements to address existing capacity deficiencies, to meet projected increases in demand, and to address existing hydraulic constraints and aging infrastructure would benefit customers in the Lamorinda/Walnut Creek area by ensuring that supplies continue to meet demand, maintaining or increasing the amount of water available for firefighting during warm weather, and reducing pressure fluctuation problems. Proposed improvements at the Orinda WTP would directly benefit Orinda residents during the months when that WTP serves Orinda. As stated on DEIR p. 2-10, a small portion of the treated water produced at the Orinda WTP during the summer serves the Lamorinda area, and during the winter months, all of the Lamorinda area is served by the Orinda WTP. Please also refer to Section 2.1.2, Master Response on Benefits to Orinda for additional response pertinent to this comment.

BM-4 Chapter 2 of the DEIR describes the need for the WTTIP projects. Refer to **Response BM-7** regarding compliance with current and future drinking water regulations.

BM-5 This comment states that the DEIR only "considers a few alternatives, and inadequately dismisses most." The comment then indicates that for Alternatives 1 and 2, "it is unclear exactly what is being proposed, what elements are project-level and which are program-level, and how decisions on program-level projects will be decided."

Regarding the number of alternatives considered, Table 6-1 (DEIR p. 6-3) and Section 6.10 (beginning on DEIR p. 6-39) describe the more than two dozen alternatives involving water treatment plants that have been considered to date and the reason that all but four were eliminated. Consistent with the California Environmental Quality Act (CEQA), each potential alternative was included in the EIR or eliminated based on feasibility, ability to meet most of the project's basic objectives, and capacity to reduce environmental impacts.

Regarding the description of Alternatives 1 and 2, Sections S.3.2 (in the Summary) and 2.1 (in Chapter 2) provide overviews of both alternatives. Sections 2.4 and 2.5 (Chapter 2) provide detailed descriptions of Alternatives 1 and 2, respectively. Table S-2 (reprinted in Chapter 2 as Table 2-1) indicates the transmission and distribution system projects evaluated at a) a project level of detail and b) a program level of detail; Table S-3 (reprinted in Chapter 2 as Table 2-2) lists the proposed improvements at the water treatment plant and indicates the alternative under which the improvement is proposed as well as whether it is evaluated at a project level or a program level of detail.

The decisions to implement the various program-level elements will be discretionary actions by the EBMUD Board of Directors. Please note the following text from DEIR p. S-19:

> *Decisions to Implement Potential Program-level Improvements*. The need for high-rate sedimentation and ultraviolet disinfection processes at the water treatment plants would be determined in the future, subsequent to Board action on project-level WTTIP elements, based on regulatory requirements. Likewise, the need to construct the program-level clearwells and San Pablo Pumping Plant and Pipeline at and from the Orinda WTP would be determined in the future, based on further consideration of water management strategies. In the future, EBMUD will need to implement the Saint Mary's Road/Rohrer Drive Pipeline, New Leland Pressure Zone Reservoir, and Leland Reservoir Replacement projects. As part of implementation of these various projects, EBMUD would conduct the necessary site evaluation, design, environmental review and permitting activities before beginning construction.

Please also refer to Section 2.1.1, Master Response on Program- and Project-Level Distinctions for additional response pertinent to this comment.

BM-6 At a minimum, public notification of future actions on the program-level elements will comply with the requirements of CEQA. As described in Appendix A of the DEIR and in the Introduction to this Response to Comments document, the District's public outreach efforts typically far exceed CEQA requirements.

BM-7 While the DEIR identifies several regulatory requirements that have been considered in the development of the treatment and transmission improvement program, minimal compliance with these regulations is not the sole goal of the program to improve the water treatment and transmission system.

As emphasized on DEIR pp. 2-18 and 2-19, it is the practice of EBMUD to establish internal water quality goals that surpass state or federal requirements. As stated in Section 2.2.3 Table 2-5, EBMUD sets these independent goals to ensure that it can meet regulations with an acceptable margin of safety, to plan for future more stringent regulatory standards, and to provide reliable, high quality service. Specifics on how the proposed program-level facilities would assist in compliance with future regulations are provided in the following paragraphs.

The Long-Term 2 Enhanced Surface Water Treatment Rule requires water systems begin monitoring their water sources in October 2006 for Cryptosporidium. The results of the monitoring will determine whether the system requires additional treatment and will generally have three years to comply with any requirements. Additional treatment process would include either physical removal or inactivation of pathogens. The proposed program-level high rate sedimentation basins or the ultra-violet light system would meet any additional treatment requirements if necessary based on source water quality monitoring. The District's in-line water treatment plants currently have only one barrier, filtration, for the physical removal of particulates and consequently Cryptosporidium. The proposed high rate sedimentation basin would provide an additional process for the removal of particulates. The program-level ultraviolet light

disinfection system in the primary treatment process would assist inactivating cryptosporidium, giardia, and other microbial pathogens.

The objective of the Stage Two Disinfection Byproducts Rule is to reduce potential cancer and developmental health risks from disinfection byproducts in drinking water by setting limits for disinfectants and disinfection byproducts in water distribution systems. The intent of the proposed program-level chlorine contact basin is to introduce chlorine at the end of the treatment process rather than before filtration. This would allow for removal of organics through filtration, reducing the dose of disinfectant required and reducing the formation of disinfection byproducts. See DEIR p. 2-20.

The Mokelumne River is a relatively high quality water source. However, there have been recent sporadic changes in Pardee Reservoir resulting in increases in raw water turbidity and plankton. Within the past five years, there have been episodes when the disinfection and the turbidity standards have been met with virtually no margin of safety. During this same period turbidity standards as applied to EBMUD facilities have become increasingly stringent. The District is concerned that if these types of upsets continue, they may lead to the inability to treat adequate quantities of water or violations leading to boil water notices. It is not known at this time if the water quality changes at Pardee are transitory or will be long lasting. Therefore, it is prudent for the District to plan for future additional treatment processes to accommodate a change in source water quality.

BM-8 EBMUD is concerned with compliance with regulations governing its distribution system. As discussed in Section 2.2 of the DEIR, as treated water ages disinfectant residuals decrease. Should the residuals decrease below the detection limit, additional disinfectants would need to be added to the distribution system, increasing disinfection byproduct formation. This could cause compliance issues with the Stage 2 Disinfection Byproduct Rule.

In addition, disinfection byproducts such as N-nitrosodimethylamine (NDMA) form in the distribution system with long treated water ages. This compound is currently not regulated, however, could be regulated by the State of California. California has recently taken similar action for another contaminant, perchlorate.

Excessive water age is a concern for EBMUD because clearwell storage is currently maintained in large open cut reservoirs in the West of Hills area. A clearwell at the water treatment plant would allow a reduction of storage in the large open cut reservoirs, thereby reducing water age and improving water quality in the distribution system. As discussed in Section 2.4.3 and in section 6.10.1, the purpose of constructing the clearwell from a water quality perspective[1] is two-fold: 1) to manage the quality of

[1] From a non-water quality purpose of the clearwell would be to provide equalization storage between the WTP filter operations and the demands from the distribution system pumping plants and rate control stations.

treated water delivered to the distribution system and; 2) to allow the reduction in water volume to manage the quality of treated water in distribution storage reservoirs.

Overall, it should be noted that distribution system improvements are being undertaken to address capacity deficiencies and to replace and upgrade aging infrastructure.

BM-9 This comment refers to use of ultraviolet light (UV) as part of primary treatment processes as a potential WTTIP alternative, stating that use of UV to inactivate microbial pathogens is "practical and would be unobtrusive for both the Orinda and Lafayette water treatment plants." The comment then cites benefits of such use of UV disinfection: modified use of chloramines as a residual disinfectant, and potential elimination of the need for the clearwells proposed at these WTPs.

While UV disinfection may be required or desirable in the future, it would not eliminate the need for the clearwells. UV disinfection has been shown to be effective for some drinking water pathogens including *cryptosporidium*. However, UV disinfection was not considered as a primary disinfection step in the DEIR, in part because EBMUD source water does not require this additional treatment step to meet current regulations. UV disinfection is considered as a step in treating clarified backwash water because this waste stream would potentially include concentrated pathogens filtered out of the water. EBMUD does not agree that adding UV disinfection for the primary process flows at the Lafayette or Orinda WTPs would reduce the required chloramine dosage. Chloramine dosage is determined based on maintaining high water quality in the distribution system; pilot work conducted by EBMUD as part of a collaboration with American Water Works Association Research Foundation (AWWARF) (published in 2005) indicates that use of UV would not result in any changes to the desired chloramines dosages in the distribution system. For EBMUD, UV disinfection is not an alternative to the plant clearwells. The clearwells would still be required to meet production requirements for short duration upsets, or to contain water not meeting regulatory requirements so that this water does not enter the distribution system. The clearwell would also provide equalization for the WTP flow rates and allow more energy-efficient use of distribution system pumping plants that pump directly from the discharge end of the WTP. This is the case for both the Orinda and Lafayette plants. The clearwells would also provide storage at the plant to ensure adequate water quality before releasing into gravity fed distribution reservoirs, as discussed on DEIR pp. 2-44 and 2-47.

The program and project elements in the EIR are compatible with the installation of UV treatment in the future for either Lafayette or Orinda WTPs, should such treatment be required due to changes in source water or changes in regulations.

BM-10 This comment questions why EBMUD has rejected membrane filtration and states that a number of utilities in California are using this technology. The Membrane Filtration Alternative has not been rejected. As stated on DEIR p. 6-9, if Alternative 1 is selected, membrane technology may be reviewed at the predesign stage of the project.

DEIR pp. 6-5 through 6-12 explain EBMUD's analysis and position on membrane technology. The DEIR does not reject the alternative technology at Lafayette. To clarify, at this point EBMUD believes that the use of membrane technology has not been properly analyzed and evaluated at this point. Nonetheless, if it becomes a viable technology for EBMUD, it will be considered. Pilot-testing with all water sources (Mokelumne, Briones and Freeport) would be essential to determine treatment efficiency (including energy cost because membranes are more energy intensive than gravity solid media filters), membrane longevity, appropriate membrane type, and required pretreatment. Only after adequate pilot testing could facilities be sized and fully evaluated, including evaluation of potential impacts. As noted in the DEIR, the District is aware that other utilities use membranes in this plant size range. If the planned pilot testing proves successful, EBMUD will give full and serious consideration to implementing this technology in lieu of rebuilding the conventional filters as currently proposed at Lafayette WTP. As noted in the DEIR, with the single exception of energy consumption, it is likely that all other impacts associated with this type of technology would result in either the same or a lesser environmental impact. Should EBMUD pursue this technology, impacts would be evaluated in accordance with CEQA.

BM-11 This comment discusses the treatment plant alternative siting and suggests that the EBMUD property north of Bear Creek Road could be used for siting the proposed clearwell (then sports field would remain available to Orinda).

The project-level description in the DEIR sites facilities within the existing confines of plant, and thus is an efficient use of EBMUD owned property that is specifically allocated for treatment plant needs. The siting of facilities and processes that are discussed at a program level in the DEIR will be further refined in a subsequent project-level environmental document. With regard to locating some of the facilities on the property north of Bear Creek Road, this would be costly and more disruptive to construct, and much less efficient given the long and large pipelines that would be required to transport the plant water production to and from the remote clearwell. Further, the natural watershed environment associated with the facilities would be eliminated and visually changed and would adversely affect users of the watershed roads and trails and the local ecology.

Regarding future use of the Sports Field, refer to **Response BM-1**.

BM-12 While reliability is an important objective of the WTTIP (see DEIR pp. 2-22 and 6-50), reliability to major earthquakes has been addressed through another program dedicated specifically to that issue, described herein. After the Loma Prieta earthquake in 1989, EBMUD initiated a seismic evaluation program. In 1994 the board of directors formally adopted a 10-year, $189 million Seismic Improvement Program (SIP). Four main goals for post-earthquake service guided EBMUD to protect its water system through the SIP:

- Life Safety: Prevent the loss of life due to the failure of any EBMUD facility.
- Fire Service: Improve water service in all areas, especially high fire-danger zones.
- Customer Service: Restore water service quickly
- Water Quality and Public Health: Guarantee that all water entering the distribution system is fully treated.

As a result of the SIP, the following improvements have been made to the water system:

- 11 building structures and equipment anchorage projects have been seismically retrofitted for the protection of the public and staff; two others (East Area Service Center and South Area Service Center) in progress.
- 71 storage reservoirs have been upgraded or demolished.
- 2 are in progress (Richmond and Berryman South).
- 110 pumping plants have been upgraded and emergency backup equipment added.
- 5 water treatment plants have been upgraded to improve post-earthquake operations by upgrading control buildings, filter gallery roofs, chemical tanks and pipelines, and pumps and valves.
- 51 pipeline fault crossings and 5 transmission system upgrades have been completed to improve flexibility for transmitting water in the distribution system and to mitigate landslide hazards for key pipes.
- The Southern Loop Pipeline has been completed to provide redundancy in the water system on both east and west sides of the EBMUD's service area.
- The Claremont Tunnel Seismic Upgrade Project will provide a reliable source of water to customers west of the Berkeley Hills. Construction is in progress with an expected spring 2007 completion date.

Design and construction for buildings will be performed in accordance with the District's seismic design standards, which meet and/or exceed design standards for Seismic Zone 4 of the Uniform Building Code. All new WTTIP facilities will be designed to the latest state of the art seismic structural standards.

BM-13 The DEIR meets the requirements of CEQA. The District, through preparation of this Response to Comments document, revisions to the DEIR, and ongoing discussions with concerned individuals and public representatives, is responding to the questions and concerns regarding the EIR and, more generally, the WTTIP project. The commenter's suggestions regarding consideration of alternatives is noted.

Comment Letter BS

From: Barry Sweedler [mailto:sweedlb@hotmail.com]
Sent: Monday, June 26, 2006 3:44 PM
To: Water Treatment Transmission Improvements Program
Subject: Comment WTTIP DEIR - Barry M. Sweedler

To: Judy Zavadil

Thank you for taking the time to talk to me this morning. After reviewing the material I received in the mail and information on your website, I would like to provide a number of comments and request consideration of my suggestions.

I reside at 3798 Mosswood Drive in Lafayette. Our property backs up to EBMUD property and is quite close to the proposed route of the Moraga Road Pipeline.

In January of 1988, one of your valves failed resulting in a major flood of our home. Obviously, since then we have been very interested in any work or proposed work on your facilities near us.

I would like to ask if you could consider moving the proposed route of the line below the dam to the south side of the permanent access road. That would move it further from our home and those of our neighbors. That would seem to have a number of advantages from our standpoint: 1) being further from us, any future failures would have a lesser impact, 2) the area at the top of the reservior is open which would result is fewer large and small trees being lost. Not having to cut through the center of the pear orchard would preserve these historic 100 year old trees. They are the last remaining trees from the orchards that existed before the constuction of the reservior. Whichever route is selected I would hope that as small a right-of-way as possible be utilized in order to preserve as many trees as possible.

BS-1

BS-2

BS-3

I recognize that my suggestion would require crossing the access road twice, but believe the extra cost is well justified from both the safety and environmental standpoint.

BS-4

I support your improvement project, but hope you will consider my input.

BS-5

Please contact me if I can provide additional information or if you would like to discuss this matter further.

Sincerely,

Barry M. Sweedler, P.E.
Partner
Safety and Policy Analysis International, L.L.C.
3798 Mosswood Drive
Lafayette, CA 94549 USA
Tel/Fax: 925-962-1810, Cell: 925-788-1865
Email: sweedlb@hotmail.com
Web site: www.safetyandpolicy.com

2.18 Barry Sweedler

BS-1 EBMUD does not desire to place the proposed pipeline on the south side of the access road because a portion of the alignment would have to be placed within the reservoir's embankment toe to avoid several heritage oak trees. Placing the pipeline in the embankment would also increase the risk of jeopardizing the reservoir embankment if a pipe rupture were to occur.

BS-2 EBMUD recognizes the sensitivity of this project component to the adjacent residents and the remnant pear orchard. The Moraga Road Pipeline is a project-level element, so this is the proposed alignment. As indicated on DEIR p. 3.7-31, the remnant orchard would not likely qualify as a historic resource/historic landscape due to the highly altered setting. Therefore, removal of some of the orchard's pear trees due to the Moraga Road Pipeline would not be considered a significant impact to historic resources under CEQA, nor are the trees protected under the Lafayette Tree Ordinance.

BS-3 EBMUD will review the alignment during preliminary design to preserve trees where feasible.

BS-4 Please see **Response BS-1**.

BS-5 Comment noted. The District intends to consider this input.

From: Bruce Van Voorhis [redacted]
Sent: Tuesday, September 05, 2006 7:51 PM
To: Water Treatment Transmission Improvements Program
Subject: Orinda filter plant

Please add my name to the long list of residents living nearby who oppose the plan for expansion. Why not rethink the problem?

Bruce Van Voorhis
[redacted]

2.19 Bruce Van Voorhis

BV-1 The commenter's opposition to the project is acknowledged. The WTTIP EIR is part of a process the District is engaged in to evaluate the improvements that may ultimately be implemented at the Orinda WTP. Community input is important to help to shape project development through the current CEQA process, as well as future environmental evaluations pursuant to CEQA that may be needed for improvements at the Orinda WTP. Please also refer to Section 2.1.2, Master Response on Benefits to Orinda.

Comment Letter BW

From: Williams, Brandt [mailto:brawilliams@firstam.com]
Sent: Tue 7/18/2006 9:30 AM
To: Harlow, Nora; Foulkes, Katy
Cc: Glazer; Abrams; Bill Judge; Brandt - home; Larry Lange; Bill Gross; Brandt - home; Brandt Williams ; Carl H. Arvold; Don Scherer; dwightfoster@gmail.com; Edward Trippe; Goodwin; Jack Gilbert; Marc Cohen; Michael Hofmayer; Steve Bundy; Ursu; Brandt Williams (E-mail)
Subject: Request from Orinda Residents

Ms. Foulkes, Ms. Harlow and EBMUD Board of Directors

On behalf of the Orinda Estates Neighborhood and the Orinda Estates Neighborhood Association, I would like to formally request that the comment period for the Draft EIR Sch#2005092079 be extended an additional 60 days from the current deadline. BW-1

I would also like to make a second request that 2 additional informational meetings are held by EBMUD in Orinda and all citizens are notified by EBMUD of these additional meetings. The additional meetings would be after the August 2nd meeting. These additional meetings would be for the sole purpose for the citizens of Orinda to voice their support or opposition to the proposed expansion plans contained in the draft EIR. I cite the following justification for this request. BW-2

1. This document and the proposals within are very complicated to understand.
2. The response period is very short for such a large project with so many impacted citizens.
3. The City of Orinda has not had a chance to get adequate feedback from its citizenry.
4. Only one meeting has been held in the City of Orinda by EBMUD explaining the Draft EIR.
5. The time of year is unfortunate with many families and citizens traveling during the last 2 weeks of summer break.
6. Not all residents and EBMUD neighbors fully understand the impact of the proposed expansion by EBMUD.
7. OUSD, namely Wagner Ranch School, is greatly impacted by the proposed expansion and their staff is in recess for the summer hiatus.

Please contact me directly upon receipt of this request.

Respectfully,
-Brandt Williams
Orinda Resident

2.20 Brandt Williams

BW-1 This email was sent on July 18, 2006. The comment period was extended to September 18, 2006.

BW-2 EBMUD held two informational meetings in Orinda on June 27 and August 2, 2006 and extended the comment period to facilitate input from the community. At the meetings the District sought to ensure that residents understood the purpose of the project and its impacts.

From: Williams, Brandt [mailto:brawilliams@firstam.com]
Sent: Monday, September 18, 2006 9:31 AM
To: Water Treatment Transmission Improvements Program; Harlow, Nora; Foulkes, Katy
Cc: Brandt - home; Brandt Williams ; Abrams; Amy Worth; City Offices; Glazer; Judge; Keeter; Smith; Ursu
Subject: Draft EIR: Orinda - response

Draft EIR (sch#2005092019)

Attn:
Judy Zavadil
Katy Foulkes
Board of Directors, EBMUD

I am opposed to the current plan outlined in the Draft EIR (sch#2005092019). In my capacity as the most recent past President of the Orinda Estates Neighborhood Association I speak for the 62 homes on the Orinda Filter Plant's North Eastern border that we oppose your proposal for expansion of the Orinda Filter Plant. BW1-1

EBMUD must scrap the current Draft EIR and start with a new plan for the following reasons. BW1-2

1. It is not clearly stated in the draft EIR as to why the expansion is necessary to meet current and future demands. BW1-3
2. It is not stated how the expansion will increase the quality of water or its transmission. BW1-4
3. No consideration has been given to using newer technologies that would not require building large infrastructure, e.g. UV purification systems. Newer technologies would not require expensive and intrusive expansion of the footprint of the filter plant. BW1-5
4. EBMUD has many locations that would be better suited to creating an expanded industrial site. No consideration was made in any public document or review process for examining using other sites for this expanding industrial site. BW1-6 There has been no evidence that building a new site or expanding an existing site in Lafayette or Walnut Creek would be better or more cost effective. Anecdotal evidence of "it would be expensive" as presented at a board meeting is not adequate for community review. BW1-7
5. The current proposal as outlined will violate the city and county's charter of the scenic corridor along Camino Pablo BW1-8
6. Locating large tanks in an industrial site contiguous to an elementary school is dangerous and impractical. BW1-9
7. The proposed multi-story buildings, power plant building, multi level storage tanks and numerous ingress and egress changes will be an eyesore. The proposed plan fails to comply with any zoning, design review or aesthetic appeal that **ALL** residents of Orinda must comply. EBMUD has chosen to ignore those rules in the draft EIR. BW1-10
8. Removal of much needed open green space and the sports fields shows EBMUD's lack of commitment to the community of Orinda and its residents. BW1-11
9. The residents oppose this expansion. BW1-12
10. The City of Orinda opposes this expansion. BW1-13

Further I suspect that the EBMUD has not fully disclosed its intentions for the Orinda Filter Plant. The draft EIR does not address the future demands for water in higher BW1-14 BW1-15

density communities and communities experiencing significant building growth in North Contra Costa County. The draft EIR omits any mention of the planned building growth for the next 20 years in the communities that will experience the most growth in population and residential building. Orinda receives NO benefit from any expansion to this industrial site. BW1-15 BW1-16 BW1-17

Orinda residents are being asked: to bear the burden of an aging water system; live with a filter plant expansion that is not needed; suffer the poor planning of EBMUD; live with an industrial neighbor that has not considered the long term effect of the community; suffer the economic hardship with certain property value losses because our homes are next to an expanding industrial site.

Consider these objections as you have neighbors that do not wish to have you expand in our community.

Respectfully,

-Brandt & Amy Williams
Orinda Resident

2.21 Brandt Williams

Many of the comments in this letter are similar to comments in the letter submitted by Ann Sharf. Consequently, many of the responses below cross-reference to responses in Ms. Sharf's letter.

BW1-1 The commenter's opposition to the project is acknowledged.

The District has disclosed all intentions for future facilities at the WTP. The District has fully disclosed its current intentions at the WTP. In an effort to fully disclose any reasonable future intentions the District has also included in the EIR numerous facilities at the program level.

BW1-2 This is a summary comment based on comments presented in **Comments BW1-3** through **BW1-17** (refer to relevant responses, below).

BW1-3 See DEIR Section 2.2.2 for a discussion on the need for the project.

BW1-4 The need for proposed improvements at the Orinda WTP is described in Section 2.2 of the DEIR. Overall, the WTTIP is intended to promote water quality and improve the transmission system. For more in-depth information, please see **Responses ORIN-9**, **ORIN-10** and **ORIN-11**.

BW1-5 Please see **Responses BM-7, BM-8, BM-9, BM-10, BM-11, ORIN-7, ORIN-9** through **ORIN-11,** and **ORIN-13** through **ORIN-16** for a description of the proposed technologies and consideration of alternate technologies.

BW1-6 Please see **Response AS-3** and the discussion in Chapter 6 of the DEIR about alternatives to the Orinda WTP (DEIR p. 6-52).

BW1-7 DEIR p. 6-52 describes other water treatment plant alternatives considered. As stated on DEIR p. 6-54, construction of a new WTP at one of the alternative sites listed on that page would cost $1.9 billion to $2.3 billion. Please also refer to Section 2.1.2, Master Response on Benefits to Orinda, for additional response pertinent to this comment.

BW1-8 Please see **Response AS-7**.

BW1-9 Please see **Response AS-5**.

BW1-10 Please see **Response AS-6**.

BW1-11 The District owns the land occupied by the Sports Field and leases it to the City of Orinda. There is an existing MOU between EBMUD and the City of Orinda addressing the use of the Orinda Sports Field (regarding "Recreational and Watershed Land Use Policies and Objectives in the City of Orinda"). As stated in the MOU, "The City's

current use of the Camino Pablo property for recreation fields will terminate when new recreational facilities to be constructed on the Gateway property are complete and fully ready for public use." The MOU states that the District agrees to defer projects that preclude City of Orinda use of the property where the Orinda Sports Field is located until new sports fields at the Montenara/Orinda Gateway development (on land formerly owned by EBMUD) are complete. The MOU further states that the Montenara fields must be complete within five years of the MOU signing date (June 30, 2005). If the Montenara fields are not complete by June 30, 2010 but diligent efforts are being made by the City of Orinda to complete construction, then the agreement will be extended by a year (to June 2011). An additional one-year extension (to June 2012) would be granted under the same circumstances, after which the MOU could be renewed only by written agreement. Under either Alternative 1 or Alternative 2, the District may need to construct several facilities in the area now used as the Orinda Sports Field, but the earliest construction of such facilities would be June 2014 (see Table 2-8, DEIR p. 2-58). If the District does not move forward with any projects on the Camino Pablo property by the time the MOU expires, the City of Orinda will have the option to renew a lease to continue use of the sports field at the Camino Pablo property on terms mutually agreed upon by the City and the District.

BW1-12 The opposition of residents is acknowledged.

BW1-13 The stated opposition of the City is acknowledged.

BW1-14 Comment noted. The District fully discloses its intentions with regard to the Orinda WTP. See Sections 2.4 and 2.5 of the DEIR regarding improvements to the Orinda WTP under Alternatives 1 and 2.

BW1-15 The commenter raises a concern about the impact of future demands in north Contra Costa County. This comment does not indicate the cities in northern Contra Costa County to which it refers. Note that most of northern Contra Costa County, including areas undergoing substantial growth such as Brentwood, is served by the Contra Costa Water District, not EBMUD.

DEIR Figure 2-1 shows the District's service area. DEIR Figure 2-2 shows the existing water treatment plant service areas. There is overlap in the service areas of the water treatment plants and on any given day the production at a particular water treatment plant can change to accommodate planned maintenance or emergencies. That portion of northern Contra Costa County served by EBMUD is primarily served by the Sobrante WTP in warm weather periods. DEIR Table 2-4 shows the forecasted demands in the water treatment plant service areas to the year 2030. The DEIR includes facilities at the Sobrante WTP as well as all the other EBMUD active WTPs to address both existing and future demands.

BW1-16 Please see Table 4-3 on DEIR p. 4-8 (*Project Water Demand by Pressure Zone*). The growth inducement analysis focuses on the areas where the project would remove

obstacles to growth, namely the areas where there is projected demand and WTTIP projects have been designed to meet that demand.

DEIR Table 2-4 shows the forecasted demands in the water treatment plant service areas to the year 2030. The DEIR is examining upgrades to address both existing and future demands.

BW1-17 DEIR p. 2-22 describes the communities that would benefit from implementation of WTTIP projects. Refer to Section 2.1.2, Master Response on Benefits to Orinda.

EBMUD

Water Treatment & Transmission Improvements Program
Draft Environmental Impact Report

Name: Bonnie Wixson - Quail Country Antiques

Address: 1581 Boulevard Way

Email: Bonnie@quailcountryantiques

COMMENTS:

traffic, road closures + access to my business which is located close to the corner of Olympic Blvd.

BW2-1

Submit this form as you leave this meeting, mail or hand deliver the form to EBMUD at Mail Stop # 701, 375 Eleventh Street, Oakland, CA, or email comments to Judy Zavadil, Senior Project Manager, at wttip@ebmud.com.

NOTE: Comments on the Draft EIR must be received by EBMUD by August 25, 2006, at 4:30 pm. Comments should be in writing and include your name and address.

2.22 Bonnie Wixson

BW2-1 Section 3.8 of the DEIR, Traffic and Circulation, describes the projected traffic, the disruption of traffic flows and street operations, and other potential impacts due to construction activities near Boulevard Way and Olympic Boulevard. This section also describes mitigation measures that would be implemented to reduce traffic impacts. Information included in the section describes existing conditions, truck trips, incremental impacts and other issues. Boulevard Way between Olympic Boulevard and Warren Road would be subject to road closure with detour routing during construction of the Tice Pipeline. As stated on DEIR p. 3.8-16, the pace of open-trench work for proposed pipeline improvements in paved areas is estimated to average 80 feet per day, and the work schedule would be 8:30 a.m. to 4:30 p.m., Monday through Friday. Based on that estimated work pace, construction in front of an individual property would take approximately one or two days. As stated on DEIR p. 3.8-20, employees and customers would continue to have access to the business establishments; however parking adjacent to businesses and truck deliveries would be affected. With sufficient advance notice, this short-term inconvenience would have a less-than-significant impact.

Comment Letter CA

From: Carl H. Arvold [mailto:carl@avron.com]
Sent: Tuesday, September 05, 2006 5:48 PM
To: Water Treatment Transmission Improvements Program
Subject:

EBMUD Board of Directors:

I am a resident of Orinda and drive by the Manzanita entrance to the Orinda Filtration plant every day. It is an eyesore now and I cannot imagine how it will be getting any better based on what I have read in your EIR. CA-1

This facility is a water treatment plant and there are at least six trucks parked there every night that have nothing to do with water treatment. When are you going to operate this facility as it was designed and not continue to encroach on the neighborhood with an industrial site? CA-2

This use of the site as a truck parking lot is within the definition of a utility site designated as a water treatment facility. CA-3

Until EBMUD gets is house in order for this facility, how can you even think about expanding it.

I am opposed to the proposed plan of expansion for the Orinda Filter Plant for the following reasons:

The Draft EIR that has been submitted is ill conceived and problematic on many levels.

Please see the letter written by my neighbor who is familiar and who has taken EBMUD's EIR to task. CA-4

As I see it:

1. There is no clearly stated need or requirement in the Draft EIR as to why EBMUD must upgrade and expand the Orinda Filter Plant. CA-5

2. Locating this large and expanding facility in a residential community is impractical, risky and not necessary. CA-6

3. Removal of the sports fields will hurt the community and deprive children of much needed recreational playing fields. CA-7

4. Your proposed expansion is contiguous to an elementary school. CA-8

5. Additional structures proposed will be unattractive and will counter the semi-rural charter in the City of Orinda. CA-9

6. Camino Pablo is designated a scenic corridor. EBMUD is planning to build multiple multi story buildings and huge storage tanks that will be visible from the corridor and therefore violate the scenic corridor designation. CA-10

7. No consideration has been given to new technologies for water treatment that would eliminate the need for large storage tanks and additional buildings for water treatment and storage. CA-11

8. No Other EBMUD locations have been considered as part of this Draft EIR. CA-12

9. There are other EBMUD locations where a filter plant could be constructed or expanded that would have NO impact on the City of Orinda and its residents. CA-13

10.. Our property values will be negatively impacted because of the expansion of the Orinda Filter Plant. CA-14

Along with the community and The City of Orinda I oppose the expansion of EBMUD's Orinda Filter Plant. CA-15

Sincerely,

Carl H. Arvold

26 Hacienda Circle

Orinda, CA 94653

Comment Letter CA

7 Stanton Court
Orinda, CA 94563

10 August 2006

East Bay Municipal Water District
attn: Judy Zavadil
375 11th Street
Mail stop 701
Oakland, CA 94607-4240

RE: Response to draft Environmental Impact Report, EBMUD Water Treatment and Transmission Improvements Program

To whom it may concern:

I live in Orinda in the area directly to the west of the Orinda EBMUD water treatment plant. My daughter and her friends attended Wagner Ranch Elementary School. We frequently use the sports field adjacent to the school site. I am concerned about the projects planned by EBMUD in the Orinda area. The major structures you want to build at their treatment plant and on the sports field are unacceptable. They will result in the loss of the sports field, which is the only such area available on the north side of Orinda. The structures will be eyesores. I expect that the projects will lower property values in the area. And there appears to be little or no benefit to those of us that live in Orinda from this project. CA-16

I have reviewed the draft EIR submitted by EBMUD, which supports my concerns. The DEIR provides little justification for any part of EBMUD's proposed project or program elements. It only considers a few alternatives, and inadequately dismisses most. For the chosen alternatives, it is unclear exactly what is being proposed, what elements are project-level and which are program-level, and how decisions on program level projects will be decided. It would appear that program-level projects could go forward with little or no further public input or oversight.

Stated justifications include compliance with current and future water regulations. With respect to Safe Drinking Water Act compliance, EBMUD is generally in compliance with current regulations. There is no reason to believe that they will not be compliant with future regulations with their current facilities and operations covered under this DEIR. Projected USEPA and CA DHS regulations that would require implementation and compliance over the next 10-15 years are unlikely to significantly affect EBMUD's water treatment operations at the facilities discussed in this EIR. The source water from the Mokulumne River is high quality, low in organic carbon and pathogens. For a surface water, it is easily treatable and produces low levels of disinfection byproducts. Beyond the new Stage 2 Disinfectant Byproducts Rule and the Long-term 2 Enhanced Surface Water Treatment Rule, the only regulation on the horizon that might have an impact is a possible distribution system regulation. This distribution system rule is likely to address operations and maintenance issues well beyond the treatment plants. If EBMUD has considerations about compliance with these regulations, it should describe them in

detail, and discuss the full range of treatment and operational alternatives that could be successfully used.

While improvements in treatment to provide even-safer water are laudable, a number of approaches are common within the industry, yet were not among the alternatives considered. As a whole, the DEIR does not show much appreciation for the treatment alternatives that could successfully meet water quality and regulatory drivers. For example, use of ultraviolet light as part of the primary treatment train to inactivate *Cryptosporidium, Giardia* and other microbial pathogens is practical, and would be unobtrusive for both the Orinda and Lafayette water treatment plants. Use of UV disinfection would allow modification of EBMUD's use of chloramine as a residual disinfectant, and probably eliminate the need for the clearwells proposed for Lafayette, for Manzanita Road and for the Orinda sports field. UV disinfection was discussed with respect to filter backwash treatment, indicating that EBMUD is willing to entertain that technology.

Membrane filtration was discussed as a treatment alternative for the Lafayette WTP, and acknowledged in the DEIR to be a superior and feasible alternative, but was rejected for no apparent reason beyond EBMUD's lack of experience with it. A number of utilities in California are successfully using this technology.

Beyond the limited consideration of treatment alternatives, project and program siting alternatives were also inadequately discussed. For example, even if it were needed, the large clearwell proposed for the sports field could be sited on EBMUD property to the north of Bear Creek Road. It would be far less visually intrusive and the sports field would remain available to Orinda. CA-16

The project purports to improve, in part, the seismic safety of the water system. However, it only addresses a portion of the likely problems resulting from a major earthquake. The Bay Area drinking water community, including EBMUD staff, is aware that a major earthquake on the Hayward fault would result in 1000's of leaks in local distribution systems and the inability to deliver safe drinking water for a substantial time. Benefits that could help Orinda and its neighboring communities would include upgrades to residential storage and distribution to improve their integrity and survivability to a major earthquake. These are not at all addressed or proposed here.

The DEIR is inadequate as written and merits substantial expansion to provide detail. In addition, the thinking behind the proposed alternatives should be reconsidered and additional alternatives brought forward. I hope that EBMUD will rethink their options for their water system upgrades to show more imagination and to better consider those that live in the communities they serve.

Sincerely,

Bruce A. Macler
925 253-9592

2.23 Carl Arvold

Many of the comments in this letter are similar to comments in the letter submitted by Ann Sharf. Consequently, many of the responses below cross-reference to responses in Ms. Sharf's letter.

CA-1 Overall, proposed facilities that would be visible from Manzanita Drive would be similar to existing facilities at the Orinda WTP site in terms of scale and general appearance; however, EBMUD has committed to mitigation measures (see Measures 3.3-2a through 3.3-2c, DEIR pp.3.3-35 through 3.3-36) to improve the appearance of new facilities. Figures 3.3-OWTP-8 and 3.3-OWTP-9 in the DEIR show an existing view of the Orinda WTP from Manzanita Drive and visual simulations of proposed improvements, with and without landscaping. Although no simulations were prepared of views from the roadway looking north, views from the north would be improved because EBMUD intends to install replacement landscaping and a new gate to screen the facilities.

CA-2 The trucks are associated with EBMUD water treatment and distribution system operations and are parked at the site at the end of the day.

CA-3 Please see **Response CA-2**.

CA-4 Comment noted.

CA-5 Please see **Responses ORIN-10** through **ORIN-17** and **BM-7, BM-8, BM-9** and **AS-2,** as well as Section 2.1.2, Master Response on Benefits to Orinda.

CA-6 Please see **Response AS-3**.

CA-7 Please see **Response AS-4**, **BM-2**, and **BM-11**.

CA-8 Please see **Response AS-5**.

CA-9 Please see **Response AS-6**.

CA-10 Please see **Response AS-7**.

CA-11 Please see **Responses ORIN-118** through **ORIN -120,** and **Response BM-9**.

CA-12 Please see **Response AS-9**.

CA-13 Please see **Response AS-9** as well as Section 2.1.2, Master Response on Benefits to Orinda.

CA-14 Refer to Section 2.1.5, Master Response on Social and Economic Costs.

CA-15 Please see **Response AS-11**.

CA-16 Please see **Responses BM-1** through **BM-13**.

Comment Letter CAOF

Oaks California Oak Foundation

Our mission is to protect and perpetuate native oak woodlands

July 18, 2006

WATER DISTRIBUTION
JUL 19 2006
PLANNING DIVISION

Judy Zavadil, Senior Project Manager, MS #701
East Bay Municipal Utility District
375 Eleventh Street
Oakland, CA 94607-4240

Re: Water Treatment and Transmission Improvements Project, Contra Costa County and Alameda County DEIR

Dear Ms. Zavadil:

The California Oak Foundation (COF) writes to advise East Bay Municipal Utility District (EBMUD) that the Water Treatment and Transmission Improvements Project (WTTIP) DEIR is in violation of Public Resources Code (PRC) §750 *et seq.* (Professional Foresters Law) and PRC §21083.4 (oak woodlands mitigation).

PRC §750 Issue

The project does not appear to have utilized the services of a Registered Professional Forester to quantify site conditions, oak habitat impacts and mitigation measures as required by PRC §750 *et seq.* Therefore, the WTTIP DEIR oak woodland findings are unlawful.

The Board of Forestry and Fire Protection (Board) has sent the attached letter informing Lake County officials of Professional Foresters Law relevance when characterizing oak woodlands under California Environmental Quality Act (CEQA) processes. The Board letter was prompted by the failure of the City of Clearlake to comply with PRC §750 *et seq.* for the Provinsalia project. The Board has also conveyed this message to local officials statewide. Notably, DEIR author Environmental Science Associates was involved in the Provinsalia project. ESA, therefore, is fully aware of the oak woodland requirements of PRC §750 *et seq.*, as is Alameda County due to the inadequacies of the Boundary Creek project.

CAOF-1

PRC §21083.4 Issue

Relative to local oak woodland regulations, the DEIR states:

> "Pursuant to California Government Code Section 53091, EBMUD, as a local agency and utility district serving a broad regional area, is not subject to building and land use zoning ordinances (such as tree ordinances) for projects involving facilities for the production,

CAOF-2

1212 BROADWAY, SUITE 842 OAKLAND CA 94612 TEL 510 763 0282 FAX 510 208 4435 OAKSTAFF@CALIFORNIAOAKS.ORG WWW.CALIFORNIAOAKS.ORG

> generation, storage or transmission of water. It is, however, the practice of EBMUD to work with host jurisdictions and neighboring communities during project planning and to conform to local environmental protection policies to the extent possible. The tree ordinances of cities and counties within the WTTIP project area are described below" (DEIR at 3.6-19).

Although EBMUD is not subject to local oak regulations, the DEIR chooses to comply with Contra Costa County, Lafayette, Moraga, Orinda, Walnut Creek and Oakland oak mitigation standards; while disregarding applicable PRC §21083.4 mitigation requirements. As an agency serving a "broad regional area" and in this project review two counties, EBMUD must comply with CEQA county oak woodlands mitigation law. The WTTIP fails to comply with PRC §21083.4 in the following areas:

CAOF-2

1. PRC §21083.4(a) requires mitigation for all impacted oak trees "5 inches or more in diameter at breast height."

2. In its discussion of Senate Bill 1334, the DEIR neglects to mention that the planting of PRC §21083.4(b) mitigation trees "shall not fulfill more than one-half of the mitigation requirement for the project." The WTTIP derives 100 percent of its oak woodland mitigation from tree planting.

3. Planted mitigation trees must be maintained for seven years, including replacement of failed plantings.

4. The DEIR impermissibly defers oak woodlands mitigation by not providing the location of mitigation planting sites.

COF urges EBMUD to halt the WTTIP project review until such time as a lawful CEQA oak woodlands evaluation is conducted and oak woodland mitigation measures consistent with state law are adopted. Failure to obey state oak woodland laws will dictate enforcement actions.

CAOF-3

Thank you for your consideration and cooperation in conserving Contra Costa County and Alameda County oak woodland resources for future generations.

Sincerely,

Janet Cobb

Janet S. Cobb, President
CALIFORNIA OAK FOUNDATION

cc: EBMUD Board of Directors
attachments (2)

Comment Letter CAOF

STATE OF CALIFORNIA—THE RESOURCES AGENCY ARNOLD SCHWARZENEGGER, *Governor*

BOARD OF FORESTRY AND FIRE PROTECTION
PROFESSIONAL FORESTERS REGISTRATION

P.O. Box 944246
SACRAMENTO, CA 94244-2460
Website: www.bof.fire.ca.gov/licensing/licensing_main.html
(916) 653-8031

January 10, 2006

Ms. Rose Marie Moore, Principal
RMM Environmental Planning
3010 Beacon Boulevard
West Sacramento, California 95691

RE: UNLICENSED PRACTICE OF FORESTRY IN THE PROVINSALIA GOLF COMMUNITY DEIR.

Dear Ms. Moore,

This letter is in response to a complaint received by this office in which unlicensed practice of forestry is alleged in the drafting of the Provinsalia Specific Plan EIR. I have reviewed portions of the Draft EIR (DEIR) and concur that the allegations of unlicensed practice are substantiated by that document. In my review of the DEIR Project Description and Section 5.3 (Biological Resources), I find no evidence that a Registered Professional Forester (RPF) was employed in the completion of the *tree survey*, *tree inventory*, *oak woodlands restoration plan*, or *tree preservation plan*. To the contrary, it would appear that another environmental consulting firm, Environmental Science Associates completed this work without the benefit of an RPF. Further, pages 58-59 of the DEIR specify that an ***arborist*** is to be employed in tree preservation planning efforts once the project has been approved. Please be advised that neither ESA's work nor the proposed use of an arborist in future forestry applications within the proposed project is compliant with the Professional Foresters Law (PFL), Public Resources Code (PRC) §750, *et seq*. CAOF-1

Though the PFL is often characterized as applicable only to activities related to the Forest Practice Act, i.e. preparation of Timber Harvest Plans (THP's, NTMP's, etc.) for removal of commercial conifer species, the PFL is in fact far broader in scope and no less applicable to oak woodlands or any other forest type. PRC §750, *et seq*. states that only a Registered Professional Forester (RPF) may practice forestry on non-federal, forested landscapes.

Forestry is defined as,

> ...the science and practice of managing forested landscapes and the treatment of the forest cover in general, and includes, among other things, the application of scientific knowledge and forestry principles in the fields of fuels management and forest protection, timber growing and utilization, forest inventories, forest economics, forest valuation and finance, and the evaluation and mitigation of impacts from forestry activities on watershed and scenic values... (PRC §753)

JAN 1 1 2005

Forested Landscapes are defined as,

> ...those tree dominated landscapes and their associated vegetation types on which there is growing a significant stand of tree species, or which are naturally capable of growing a significant stand of native trees in perpetuity, and is not otherwise devoted to non-forestry commercial, urban, or farming uses. (PRC §754)

The Board of Forestry and Fire Protection has generally interpreted the term *significant stand of tree species* to mean those stands with a canopy cover of 10% or greater.

While it has been argued that the preparation of tree inventories and forest cover characterizations in support of CEQA compliant documents does not constitute the practice of forestry, this perspective does not satisfy the Law. Regardless of context, be it a Timber Harvest Plan (THP) for a stand of ponderosa pine or an Environmental Impact Report (EIR) for development conversion of blue oak woodland, if the project occurs on a *forested landscape* an RPF must be involved. Certified arborists, vegetation ecologists, botanists, biologists or individuals from any other discipline may not serve as surrogates for a Registered Professional Forester.

CAOF-1

With respect to the proposed Provinsalia DEIR, you are advised to cease unlicensed practice of forestry immediately. You are further advised to seek the services of an RPF for corroboration of the forestry work thus far provided by ESA and completion of ongoing or anticipated forestry work within the context of the EIR. Failure to comply with the Professional Foresters Law will result in further action by the Office of Professional Foresters Registration including but not limited to initiation of a formal accusation of unlicensed practice.

Sincerely,

Eric K. Huff, RPF No. 2544
Executive Officer, Foresters Licensing

Cc: Environmental Science Associates
Mr. William Cunningham, Deputy Attorney General

Comment Letter CAOF

BOARD OF FORESTRY AND FIRE PROTECTION
PROFESSIONAL FORESTERS REGISTRATION

P.O. Box 944246
SACRAMENTO, CA 94244-2460
Website: www.bof.fire.ca.gov/licensing/licensing_main.html
(916) 653-8031

January 9, 2006

Mr. Anthony Farrington, Chair
County of Lake Board of Supervisors
255 North Forbes Street
Lakeport, California 95453

Dear Mr. Farrington,

This letter is in response to the growing misconception regarding the application of the Professional Foresters Law (PFL), within the context of the California Environmental Quality Act (CEQA). As you may be aware, the PFL became effective on January 1, 1973, one year prior to the effective date of the Z'berg-Nejedly Forest Practice Act. With the passage of the PFL, the Legislature declared the existence of a public interest in the management and treatment of California's forest resources, and regulates all persons who practice the profession of forestry. The intent of the Law is to provide the consuming public with a source of forest management experts--knowledgeable, trained, experienced and skilled in the scientific fields relating to forestry.

Though the PFL is often characterized as applicable only to activities related to the Forest Practice Act, i.e. preparation of Timber Harvest Plans (THP's, NTMP's, etc.) the PFL is in fact far broader in scope and no less applicable to oak woodlands or any other forest type. Public Resources Code (PRC) §750, *et seq.* states that only a Registered Professional Forester (RPF) may practice forestry on non-federal, forested landscapes.

Forestry is defined as,

> ...the science and practice of managing forested landscapes and the treatment of the forest cover in general, and includes, among other things, the application of scientific knowledge and forestry principles in the fields of fuels management and forest protection, timber growing and utilization, forest inventories, forest economics, forest valuation and finance, and the evaluation and mitigation of impacts from forestry activities on watershed and scenic values... (PRC §753)

Forested Landscapes are defined as,

> ...those tree dominated landscapes and their associated vegetation types on which there is growing a significant stand of tree species, or which are naturally capable of growing a significant stand of native trees in perpetuity, and is not otherwise devoted to non-forestry commercial, urban, or farming uses. (PRC §754)

CAOF-1

The Board of Forestry and Fire Protection has generally interpreted the term *significant stand of tree species* to mean those stands with a canopy cover of 10% or greater.

While it has been argued that the preparation of tree inventories and forest cover characterizations in support of CEQA compliant documents does not constitute the practice of forestry, this perspective does not satisfy the Law. Regardless of context, be it a Timber Harvest Plan for a stand of ponderosa pine or an Environmental Impact Report (EIR) for development conversion of blue oak woodland, if the project occurs on a *forested landscape* an RPF must be involved. Certified arborists, vegetation ecologists, botanists, biologists or individuals from any other discipline may not serve as surrogates for a Registered Professional Forester.

CAOF-1

The Board of Forestry and Fire Protection respectfully requests the assistance of your Board to ensure that CEQA projects under county control comply with the Professional Foresters Law. To that end, this office will provide whatever assistance it may to your Board and county departments. Further information on the Registration of Professional Foresters may be found at www.bof.fire.ca.gov/licensing/licensing_main.asp.

Thank you for your time and consideration in the review of this correspondence. Questions or concerns may be directed to me at (916) 653-8031.

Sincerely,

Eric K. Huff, RPF No. 2544
Executive Officer, Foresters Licensing

2.24 California Oak Foundation

CAOF-1 An EIR is not a technical document that can be prepared only by a registered professional. (See CEQA Guidelines §15149.) Moreover, nothing in the law requires that assessments of oak trees or woodlands be conducted only by a registered professional forester. EBMUD consults certified arborists or biologists for projects that may have an impact on trees. For the purposes of this DEIR, biologists employed by Environmental Science Associates (ESA) conducted tree assessments to estimate the number of protected trees that may be affected by the proposed projects. Further, should any of the proposed projects in the DEIR be approved, a certified arborist will be retained to assist with implementing the mitigation measures described on DEIR pp. 3.6-33 through 3.6-34.

CAOF-2 The Oak Woodlands Conservation Act directly applies to counties and not to municipal utility districts. See Public Resource Planning Code section 21083.4. However, as described on DEIR pp. 3.6-20 through 3.6-22, it is the practice of EBMUD to comply with local tree ordinances to the extent feasible and to mitigate any removal or damage to trees that may occur as a result of water distribution projects. Furthermore, as mentioned in **Response CAOF-1**, a certified arborist will be retained to assist with implementing Mitigation Measures 3.6-1a through 3.6-1e, which pertain to removal of and damage to protected trees. In addition, Measure 3.6-1d has been revised in the DEIR (refer to Section 3.2, Text Revisions, in this Response to Comments document).

See **Response LAF-10** for clarification and specification of mitigation regarding replacement trees.

CAOF-3 EBMUD evaluated the potential impacts on trees in the DEIR in accordance with all applicable state laws. EBMUD does not agree that the DEIR fails to comply with the Oak Woodlands Conservation Act.

Comment Letter CB

-----Original Message-----
From: Thomas Barber [mailto:thomas.barber@comcast.net]
Sent: Tuesday, September 12, 2006 11:40 PM
To: Water Treatment Transmission Improvements Program
Subject: Orinda

EBMUD Board of Directors:

As a resident of Orinda, I am opposed to the proposed plan of expansion for the Orinda Filter Plant for the following reasons: CB-1

· The Draft EIR that has been submitted is ill conceived and problematic on many levels. CB-1

· There is no clearly stated need or requirement in the Draft EIR as to why EBMUD must upgrade and expand the Orinda Filter Plant . CB-2

· Locating this large and expanding facility in a residential community is impractical, risky and not necessary. CB-3

· Removal of the sports fields will hurt the community and deprive children of much needed recreational playing fields. CB-4

· Your proposed expansion is contiguous to an elementary school. CB-5

· Additional structures proposed will be unattractive and will counter the semi-rural charter in the City of Orinda. CB-6

· Camino Pablo is designated a scenic corridor. EBMUD is planning to build multiple multi story buildings and huge storage tanks that will be visible from the corridor and therefore violate the scenic corridor designation. CB-7

· No consideration has been given to new technologies for water treatment that would eliminate the need for large storage tanks and additional buildings for water treatment and storage. CB-8

· Other EBMUD locations have not been considered as part of this Draft EIR. CB-9

There are other EBMUD locations where a filter plant could be constructed or expanded that would have NO impact on the City of Orinda nd its residents. CB-10

Our property values will be negatively impacted because of the expansion of the Orinda Filter Plant. Please consider that the community and its residents and The City of Orinda oppose the expansion of EBMUD¹s Orinda Filter Plant. CB-11

Sincerely,

Carol Ann Barber

2.25 Carol Ann Barber

Many of the comments in this letter are similar to comments in the letter submitted by Ann Sharf. Consequently, many of the responses below cross-reference to responses in Ms. Sharf's letter.

CB-1 The commenter's opinion is noted. Refer to subsequent responses regarding specific issues raised, as well as Section 2.1.1, Master Response on Program- and Project-Level Distinctions.

CB-2 Please see **Response AS-2** as well as Section 2.1.2, Master Response on Benefits to Orinda.

CB-3 Please see **Response AS-3** as well as Section 2.1.2, Master Response on Benefits to Orinda.

CB-4 Please see **Responses AS-4**, **BM-2** and **BM-11**.

CB-5 Please see **Response AS-5**.

CB-6 Please see **Response AS-6**.

CB-7 Please see **Response AS-7**.

CB-8 Please see **Responses ORIN-118** through **ORIN-120,** and **Response BM-9**.

CB-9 Please see **Response AS-9**.

CB-10 Please see **Response AS-9**.

CB-11 Please see Section 2.1.5, Master Response on Social and Economic Costs.

Comment Letter CC

-----Original Message-----
From: Charlotte Cairney [mailto:charbob@silcon.com]
Sent: Saturday, August 19, 2006 12:36 PM
To: Water Treatment Transmission Improvements Program
Subject: Proposed site for Lafayette Treatment Plant

I firmly oppose the present contemplated site for a new treatment plant.
Surely, you can find a site where mature trees are not sacrificed and the visual impact is considered for the many residents and non-residents who so enjoy and utilize the reservoir.

We have always thought of EBMUD as an enhancer of our environment here in the East Bay and hope you will continue to contribute to the public's enjoyment of the beauty of where we live.

CC-1

Thank you.

Charlotte L. Cairney
481 Peacock Blvd.
Lafayette, CA 94549
925.283.3654

A homeowner at this address since 1954.

2.26 Charlotte Cairney

CC-1 The commenter likely is referring to the Highland Reservoir and Pipelines project. EBMUD has revisited potential reservoir layout designs at the preferred site. As a result, EBMUD is proposing to move the reservoir approximately 120 feet north and to use a temporary retaining wall during construction to minimize the number of large oak trees impacted by construction of the new facility. Refer to Section 3.3 of this Response to Comments document for more detail.

From: kestrel96@aol.com [mailto:kestrel96@aol.com]
Sent: Monday, September 18, 2006 2:36 PM
To: Water Treatment Transmission Improvements Program
Cc: runbets@msn.com; ajrothman@comcast.net; mjm393@comcast.net; kfulkes@ebmud.com; jzavadil@embud.com
Subject: DEIR comments-Trans imp project

I'm writing to state my opposition to the EBMUD proposal to construct a pumping plant at the intersection of
Miner Road and Camino Sobrante in Orinda. CN-1

In general, I'm not in favor of construction of any pumping plant within any residential area in Orinda, but this particular site appears to have the most significant unmitigatible CN-2
impacts in the way of noise and visual quality to neighbors. The site is flanked by two residences, and they are in close proximityto the proposed pumping plant. The chronic CN-3
noise and reduction in visual quality posed by the pumping plant cannot be adequately mitigated because the site is too small and shallow (measured from Miner Road to the creek) to host substantial screening and noise reduction measures. As it is, these CN-4
neighbors are already subjected to traffic noise, and a pumping plant would have a further negative effect on their ability to enjoy their properties. As such, I'd consider that a pumping plant would negatively alter the neighborhood property values as well.

If the plant is to be lighted at night for security purposes, this would result in an CN-5
additional intrusion for the neighbors at 393, 400, and 401 Miner Road. Ingress and CN-6
egress at this location is also troublesome because of the speed and traffic volumes along Miner Road.

If the pumping plant has to be constructed, please consider the other sites (#1 Miner Road CN-7
and the Lombardy Lane property) as mitigation measures can be effective at these CN-8
locations and the proximity and number of adjacent neighbors is less of a factor. I'd suggest a less utilitarian fencing and building construction scheme to be more compabitable with the neighborhood environment.

Thank you for considering these comments.

Cheryl Nevares
15 La Cintilla
Orinda, CA 94563
(925)254-3362

2.27 Cheryl Nevares

CN-1 The comment expresses opposition to construction of the Happy Valley Pumping Plant at the alternative site on Miner Road. Approval of the alternative site is at the discretion of the EBMUD Board of Directors. In response to concerns expressed in this and other letters commenting on the alternative site, the District has expanded the discussion presented in Chapter 6 of the DEIR to clarify the discussion of environmental impacts (refer to Chapter 3, Text Revisions, in this Response to Comments document).

CN-2 Refer to **Response RCW1-4** for a discussion of the potential noise impacts associated with the Happy Valley Pumping Plant Alternative site. Regarding potential visual impacts refer to DEIR pp. 6-35 through 6-37. Figures 27 through 30 provide visual simulations of the Happy Valley Pumping Plant Alternative site. In addition, text in Section 3.4 of this Response to Comments document provides further discussion of this site.

CN-3 Refer to **Response RCW1-4** regarding noise impacts at the Happy Valley Pumping Plant Alternative site. In response to this and similar comments, the District has prepared visual simulations of the alternative site. Refer to Section 3.4, in this Response to Comments document. The visual simulations show the general appearance (shape, massing, orientation) of the proposed pumping plant. As required by mitigation measures set forth in the DEIR, the pumping plant would be integrated with its surroundings through architectural design features and landscaping. See Measure 3.3-2c (DEIR p. 3.3-36). The District would coordinate with neighborhood representatives during development of landscape plans (Measure 3.3-2a, DEIR p. 3.3-35).

Figure 9 (below) provides examples of pumping plants designed to blend in with their surroundings.

Please also note that the owner of the Happy Valley Pumping Plant Alternative site has submitted an application to the City of Orinda to construct an 1100-square-foot accessory structure at the same location; therefore, the future setting of the site would likely change significantly whether or not the pumping plant is constructed at that location.

CN-4 See Sections 3.8 and 3.10 in the DEIR for mitigation measures related to traffic and noise. Refer to Section 2.1.5, Master Response on Social and Economic Costs.

CN-5 As stated on DEIR p. 3.3-48 in Measures 3.3-5b and 3.3-5c, EBMUD would install lights at the Happy Valley Pumping Plant. The preliminary design for the Happy Valley Pumping Plant does not include night lighting for security purposes. Motion detector security lighting would not be used either. However, EBMUD will install lights on the outside of the facility to be used only in the event of after-hours

SOURCE: EBMUD

EBMUD Water Treatment and Transmission Improvements Program . 204369

Figure 9
Pumping Plant Examples
(Page 1)

SOURCE: EBMUD

EBMUD Water Treatment and Transmission Improvements Program . 204369

Figure 9
Pumping Plant Examples
(Page 2)

(emergency) maintenance. These lights will be focused to specific areas (i.e., not flood lights) such as the entrance to the building and the electrical switch gear, and will include shielding to prevent the light from being directed off-site or into the sky. Lights will be manually activated via a typical light switch within the facility. The switch will include a 60-minute timer in the event that EBMUD staff neglect to turn the lights off upon departure. Lights will be attached to the facility using full cutoff wall packs and short bollards in lieu of pole-mounted lighting. Given the infrequent use and the new design to avoid light spill on adjoining properties, new lighting proposed for the WTTIP projects is not expected to create substantial new sources of light and glare.

CN-6 Section 6.8.2 of the DEIR acknowledges that traffic impacts would be incrementally less (relative to impacts at the proposed site) because the haul route to the Happy Valley Pumping Plant Alternative site would be shorter and less pipe would be constructed. Traffic safety and parking issues would be incrementally greater because the Alternative site is smaller than the DEIR Proposed site, and therefore has less room for construction staging. It is also adjacent to a road that carries more traffic. However, the maximum trip generation of about 34 one-way vehicle trips per day (see Table 3.8-5) would represent an increase of about 0.6 percent of the average daily volume of about 6,140 vehicles on Miner Road (see Table 3.8-1); a less-than-significant impact. Measure 3.8-1 (DEIR p. 3.8-14) stipulates that the contractor(s) will be required to comply with roadside safety protocols, including provision of "Road Work Ahead" warnings and signs informing drivers of double fines for speed infractions in a construction zone to achieve speed reductions required for safe traffic flow through the work zone. As described on DEIR pp. 3.8-7 and 3.8-8, the Project would not cause significant long-term (operational) traffic effects because the various project facilities, once installed, would only require periodic maintenance activities. On average, EBMUD's Operations and Maintenance staff would visit the Happy Valley Pumping Plant four or five times per month (for operations and maintenance activities and landscaping).

CN-7 Refer to **Response BJT-5** (reasons District staff is recommending approval of the alternative site). As stated in **Response BJT-4**, the District has considered numerous options for addressing the lack of pumping capacity serving the Las Aromas Pressure Zone and has concluded that a new pumping plant is needed. Pursuant to Measure 3.3-2a (DEIR p. 3.3-35), the District is committed to coordinating with and involving neighborhood representatives and the City of Orinda when developing design elements and landscaping to enhance the aesthetic appearance of the plant and to integrate it with the existing environment. Refer to **Response BJT-6** regarding reasons for rejecting the 1 Miner Road alternative site.

CN-8 EBMUD will install fencing and an access gate will be installed approximately 20 feet off Miner Road. The architectural styles of the fence, gate, and building will be developed to blend in with the surrounding neighborhood. Refer to Measure 3.3-2 starting on DEIR p. 3.3-35.

Comment Letter CV

-----Original Message-----
From: Chris Valle-Riestra [mailto:ChrisValle@att.net]
Sent: Wednesday, August 09, 2006 12:34 AM
To: Harlow, Nora
Cc: bob_solotar@HOTMAIL.COM; Foulkes, Katy
Subject: Proposed steel tank reservoir at Lafayette Reservoir

Nora Harlow
Public Affairs
East Bay Municipal Utility District

Dear Ms. Harlow:

I would like to protest the proposed steel tank to be built adjacent to the Rim Trail at Lafayette Reservoir. It is very unfortunate that the EBMUD would seek to remove large oaks and to ruin the natural scene along this popular trail through what is now a remarkably pristine enclave surrounded by towns. I urge the district to select one of the less-damaging alternatives to this project. CV-1

Very truly yours,
Chris Valle-Riestra
257 Vernon St. #321
Oakland, Calif. 94612
(510) 891-0621

2.28 Chris Valle-Riestra

CV-1 EBMUD has revisited potential reservoir layout designs at the preferred site. As a result, EBMUD is proposing to move the reservoir approximately 120 feet north and to use a temporary retaining wall during construction to minimize the number of large oak trees impacted by construction of the new facility. Refer to Section 3.3 of this Response to Comments document for more detail.

Comment Letter DCAY

August 31, 2006

Ms. Judy Zavadil
Senior Project Manager
EBMUD

Subject: Proposed New Leland Pressure Zone Reservoir Project

We regret that EBMUD failed to notify the Sugarloaf residents of the public meetings for the proposed Leland Pressure Zone Reservoir Project. It is disturbing to learn that our private roads have been identified as a potential construction access route. The draft EIR did not provide sufficient justifications to use the Sugarloaf route for construction, nor did it provide adequate analyses on all impacts to our neighborhood. The following are some issues for your consideration in your next EIR/project planning meetings: DCAY-1 DCAY-2

Land Use: Sugarloaf Drive and Sugarloaf Lane are private roads. The Sugarloaf Open Space allows pedestrian access only. DCAY-3

Traffic: Sugarloaf Drive and Sugarloaf Lane are narrow residential roads; it is not capable of accommodating large construction vehicles. Traffic generated by construction workers, equipments and vehicles, estimated at 178 vehicles per day based on your Highland Reservoir project data, are significant higher than the typical volume we experienced. Our neighborhood children often walk to Alamo Elementary School using the roads and Open Space trails, their safety is our utmost concern. Further, the estimated construction period of 1 to 2 years cannot be lightly classified as 'Temporary'. DCAY-4

Noise/Dust/Debris: Noise, dust and debris associated with the construction traffic will not be tolerable to our quiet, upscale neighborhood. DCAY-5

Soil Instability: The hills of Sugarloaf Open Space are undisturbed grounds that are known to have expansive soils. The external loads and vibration exerted by the constant construction traffic will likely to disintegrate the soil structure. The grounds will bound to have more cracks and become more susceptive to slope failure upon water infiltration. The construction activities will affect the stability of the slope. Our properties and lives at the foot of the hills will be threatened by possible future landslide danger. DCAY-6

Environmental Impacts: The Sugarloaf Open Space provides habitat for a range of wildlife species, including, foxes, deer, raccoons, frogs, snakes, cranes, and several species of birds. It is yet to be verified any of which are in the 'Sensitive Species' category per government mandates. The creek transverse through the Sugarloaf development serves as riparian habitat for these wildlife species. DCAY-7 The proposed construction route will disturb natural drainage course and cause stormwater runoff carrying pollutants to the creek, and eventually discharge to the San Ramon Creek. The potential degradation to wildlife habitats and stream quality due to construction-related activities requires careful planning and responsible actions. DCAY-8

Comment Letter DCAY

As identified above, using Sugarloaf roads as construction access will have significant impacts to our quality of life during construction and will likely to cause adverse consequences to our environment years after the construction. It is therefore prudent to thoroughly evaluate the many significant issues regarding the Sugarloaf construction route option prior to adopting this plan at the project level.

As owners of 81 Sugarloaf Lane and its adjoining roads, Sugarloaf Drive and Sugarloaf Lane, we hereby object to your proposal to use our property as construction access and will deny any future requests of this kind.

Sincerely,

David Chen and Anne Yang
Owners
81 Sugarloaf Lane
Alamo Ca 94507

cc: Supervisor Piepho, Contra Costa County
Mike Gibson, Alamo Improvement Association
Sugarloaf residents/Sugarloaf HOA

2.29 David Chen and Anne Yang

Please note that the New Leland Pressure Zone Reservoir is examined at program level of detail in the WTTIP EIR. EBMUD is committed to engaging in a project-level EIR at an appropriate date in the future. Refer to Section 2.1.6, Master Response on the New Leland Pressure Zone Reservoir Alternatives, for more information.

DCAY-1 The commenter notes that EBMUD failed to directly notify Sugarloaf area residents of the public meetings for the proposed New Leland Pressure Zone Reservoir.

EBMUD acknowledges that the Sugarloaf area residents were not individually notified of the public meeting for the proposed New Leland Pressure Zone Reservoir along with many other landowners and regrets that this occurred. After this lack of individual notice was discovered, a letter describing the proposed project was sent to the Sugarloaf area residents on August 24, 2006. Although it is not required by CEQA, EBMUD endeavors to individually notify landowners directly impacted by District projects where possible. EBMUD places great value on community involvement.

DCAY-2 The commenter states that the DEIR does not provide sufficient analyses and justifications for the selection of Option B as a proposed access route to the New Leland Pressure Zone Reservoir. The commenter includes several items for consideration at the District's next planning meetings regarding the proposed project. These items include concerns regarding construction traffic, the potential for noise, dust, debris, soil instability, and environmental impacts to wildlife.

The New Leland Pressure Zone Reservoir is discussed at a programmatic level of analysis in the DEIR (see Table S-2 on page S-5). The reservoir construction and the associated construction access routes will be analyzed in-depth in a future project-level EIR in which EBMUD will consider the comments indicating that Option B may not be a feasible access route to the reservoir site identified in the DEIR.

DCAY-3 Refer to **Response DCAY-2**, above. EBMUD will consider this in a future project-level EIR.

DCAY-4 Refer to **Response DCAY-2**, above. EBMUD will consider this in a future project-level EIR.

DCAY-5 There are no specific truck volumes estimated for the New Leland Pressure Zone Reservoir project. The impact discussion is a program-level analysis intended to characterize the types and magnitude of impacts that would be associated with reservoir construction at this particular site. Refer to **Response DCAY-2**, above. EBMUD will consider this in a future project-level EIR.

DCAY-6 Refer to **Response DCAY-2**. No information on access road design has been developed for this project. DEIR p. 3.4-35 presents general information on slopes at the tank site (see also **Response WC-16**).

DCAY-7 Refer to **Response DCAY-2**. DEIR pp. 3.6-74 and 3.6-75 presents general information on wildlife habitat and water-associated features in the New Leland Pressure Zone Reservoir project area.

DCAY-8 Refer to **Responses DCAY-2** and **DCAY-7**. Stormwater run-off issues will be evaluated in detail in a project-level EIR once the proposed project is better defined.

Comment Letter DG

From: Dr. D. V. Giri [mailto:Giri@dvgiri.com]
Sent: Thursday, July 27, 2006 10:35 AM
To: Water Treatment Transmission Improvements Program
Cc: Harlow, Nora
Subject: Leland Reservoir

Sir/Ma'am

Some of the residents of Rudgear Drive in Walnut Creek area attended the EBMUD meeting on Thursday July 20th in Walnut Creek, where we were briefed about the DEIR and how to navigate thru this voluminous report.

At that meeting we requested a site meeting with the engineer(s) from EBMUD. Ms. Nora Harlow is coordinating such a meeting for August 20th between 12 noon and 2 PM. We would have preferred to have this site meeting in early August, but this appears to be not suitable for some key EBMUD personnel.

You are aware that the deadline for submitting the written comments to DEIR is 25th August 2006.

We are looking forward to meeting with the engineers and get our questions answered and discuss alternative access and service routes. We can not articulate our comments until after the proposed meeting. We strongly feel that between the August 20th meeting and the deadline of August 25th, we do not have sufficient time to get our written comments well prepared.

For the reasons cited above, I am writing on behalf of the residents in my neighborhood to request an extension of the deadline for written comments by 2 weeks.

DG-1

Thank you, in anticipation of your assistance with this matter.

Sincerely
Dave Giri

My home address:

Dr. Dave V. Giri
101 Rudgear Drive
Walnut Creek, CA 94596-6353
Day time phone: 1 925 552 0510
E-mail: Giri@DVGiri.com
URL: www.dvgiri.com

2.30 Dave Giri

Please note that the New Leland Pressure Zone Reservoir is examined at program level of detail in the WTTIP EIR. EBMUD is committed to engaging in a project-level EIR at an appropriate date in the future. Refer to Section 2.1.6, Master Response on the New Leland Pressure Zone Reservoir Alternatives, for more information.

DG-1 The comment period was extended to September 18, 2006.

Comment Letter DGB

RECEIVED
SEP 15 2006
WATER SERVICE PLANNING

EBMUD

Water Treatment & Transmission Improvements Program
Draft Environmental Impact Report

Name: Donald + Gene Bozorth

Address: 3380 Freeman Rd Walnut Creek CA 94595

Email: dgbozorth@ifn.net

COMMENTS:

This pertains to the East Bay MUD proposed alternate pumping plant on the South-West side of Olympic Blvd. This very recently announced site as a second choice is apposed by Freeman Road residents. It is unbelievable that you would consider an industrial pump station on residential property vs. across Olympic where there is an access road and no homes. The delicate ancient valley oaks add to the pleasure of the residents plus increase their home value. We have watched over the last 50 years the former Chevron station where Olympic village sits - a glorious oak killed by cement. We saw the developer kill another with his pipe line. No home ower wants a 20 f pumping station over their back fence making noise all night. A plant located in back of the Service Station hurts no one.

DGB-1

DGB-2

DGB-3

Submit this form as you leave this meeting, mail or hand deliver the form to EBMUD at Mail Stop # 701, 375 Eleventh Street, Oakland, CA, 94607, or email comments to Judy Zavadil, Senior Project Manager, at wttip@ebmud.com.

NOTE: Comments on the Draft EIR must be received by EBMUD by September 18, 2006, at 4:30 pm. Comments should be in writing and include your name and address.

Comment Letter DGB

Marose@BOS.cccounty.us
Google @ ↓ d

2.31 Donald and Gene Bozorth

DGB-1 EBMUD staff is not recommending selection of the Tice Pumping Plant alternative site. However, approval of WTTIP projects and project sites is at the discretion of the EBMUD Board of Directors.

DGB-2 See **Response AH-2**.

DGB-3 The commenter's opposition to the alternative location for the Tice Pumping Plant is noted. District staff is not recommending this alternative for Board approval.

At the alternative site, the pumping plant could be located as close as approximately 100 feet from two homes to the north, at the east end of Freeman Road. At this distance, construction noise levels would range between 74 and 85 dBA (Leq) without noise controls and 68 to 69 dBA (Leq) with controls for all equipment except impact equipment. With the exception of noise caused by impact equipment, construction noise levels at the closest receptors would not exceed the 70-dBA speech interference criterion with implementation of feasible controls. Similar to the preferred site the alternative site, absent mitigation, would pose significant construction-related noise impacts because the 70-dBA speech interference criterion would be exceeded. However, this impact would be mitigated to a less-than-significant level with implementation of feasible noise controls listed in Measures 3.10-1a. In addition, since the alternative site is located 100 feet from the closest receptors (20 to 40 feet closer to receptors than the preferred site), Measure 3.10-1e, requiring temporary sound barriers, would also be required under this alternative.

Noise increases during pumping plant operations would be greater at the alternative site since it is approximately 20 to 40 feet closer to residences than the preferred site. At a distance of 100 feet, operational noise levels from the pumping plant and transformer would be approximately 49 dBA (Leq) at the closest receptors, which would exceed the 45-dBA nighttime noise limit. As shown in Table 3.10-8 on DEIR p. 3.10-41 (footnote "e"), locating the vents on the side of the pumping plant enclosure farthest away from residential receptors (so that solid walls face receptors) would provide an additional 20-dB reduction at these receptors. Operational noise impacts would be significant but could be mitigated to a less-than-significant level with Measure 3.10-4, similar to the preferred site. This measure would require that the pumping plant not exceed the 45-dBA nighttime noise limit at the closest residential receptors and presents various feasible design measures that could be implemented to comply with this noise limit.

Comment Letter DJB

From: burkede@comcast.net [mailto:burkede@comcast.net]
Sent: Thursday, September 07, 2006 11:16 AM
To: Water Treatment Transmission Improvements Program
Subject:

EBMUD Board of Directors:

As residents of Orinda, we are opposed to the proposed plan of expansion for the Orinda Filter Plant for the following reasons: DJB-1

- **The Draft EIR that is ill conceived and problematic on many levels.**
- **There is no clearly stated need or requirement in the Draft EIR as to why EBMUD must upgrade and expand the Orinda Filter Plant.** DJB-2
- **Locating this large and expanding facility in a residential community is impractical, risky and unnecessary.** DJB-3
- **Removal of the sports fields will hurt the community and deprive children of much needed recreational playing fields** DJB-4
- **Your proposed expansion is contiguous to an elementary school.** DJB-5
- **Additional structures proposed will be unattractive and and counter to the semi-rural charter in the City of Orinda.** DJB-6
- **Camino Pablo is designated a scenic corridor. EBMUD is planning to build numerous multi story buildings and large storage tanks that will be visible from the corridor and therefore violate the scenic corridor designation.** DJB-7
- **No consideration has been given to new technologies for water treatment that would eliminate the need for large storage tanks and additional buildings for water treatment and storage.** DJB-8
- **Other EBMUD locations have not been considered as part of this Draft EIR.** DJB-9
  - **There are other EBMUD locations where a filter plant could be constructed or expanded that would have NO impact on the City of Orinda and its residents.** DJB-10
- **Our property values will be negatively impacted because of the expansion of the Orinda Filter Plant.** DJB-11
- **The community and its residents and The City of Orinda oppose the expansion of EBMUD's Orinda Filter Plant.** DJB-12

Sincerely,

David & Joyce Burke

117 Van Ripper Lane, Orinda

2.32 David and Joyce Burke

Many of the comments in this letter are similar to comments in the letter submitted by Ann Sharf. Consequently, many of the responses below cross-reference to responses in Ms. Sharf's letter.

DJB-1 The opinion regarding the DEIR is noted. Please refer to subsequent responses regarding more specific concerns as well as Section 2.1.1, Master Response on Program- and Project-Level Distinctions.

DJB-2 Please see **Response AS-2** as well as Section 2.1.2, Master Response on Benefits to Orinda.

DJB-3 Please see **Response AS-3**.

DJB-4 Please see **Responses AS-4**, **BM-2**, and **BM-11**.

DJB-5 Please see **Response AS-5**.

DJB-6 Please see **Response AS-6**.

DJB-7 Please see **Response AS-7**.

DJB-8 Refer to **Responses ORIN-118** through **ORIN -120,** and **Response BM-9**.

DJB-9 Please see **Response AS-9**.

DJB-10 Please see **Response AS-9** as well as Section 2.1.2, Master Response on Benefits to Orinda.

DJB-11 Please see Section 2.1.5, Master Response on Social and Economic Costs.

DJB-12 Please see **Response AS-11**.

Comment Letter DM

From: Diana MaKieve [mailto:dimakieve@sbcglobal.net]
Sent: Saturday, August 26, 2006 11:26 PM
To: Water Treatment Transmission Improvements Program
Subject: Route B response-resident Sugarloaf Dr

Dear Sir and/or Madam,

Thank you for forwarding the information regarding the WTTIP project: New Leland Reservoir and the potential impact if route B is selected.

I am a resident of Sugarloaf Dr, a private street that accesses Sugarloaf Open Space and is part of the Route B proposal. Our road is private and is maintained by residents of our subdivision. I would not want our private street used for construction access to your site. The additional traffic would be an unreasonable burden for our quiet neighborhood to absorb. In addition, just looking at the various route proposals, I don't even understand why "B" would even be a viable option. The route requires the trucks to travel through, not only our quiet neighborhood, but up, around and through the open space itself. It seems to me that there would be far more environment impact via that route than any of the others. I am strongly opposed to the Route B proposal.

DM-1

DM-2

DM-3

Thank you again for forwarding this information and allowing us to provide you with feedback.

Diana MaKieve
1330 Sugarloaf Dr
988-9707

2.33 Diana MaKieve

Please note that the New Leland Pressure Zone Reservoir is examined at program level of detail in the WTTIP EIR. EBMUD is committed to engaging in a project-level EIR at an appropriate date in the future. Refer to Section 2.1.6, Master Response on the New Leland Pressure Zone Reservoir Alternatives, for more information.

DM-1 The commenter indicates that Sugarloaf Drive is a private road unfit for use as an access route for construction of the New Leland Pressure Zone Reservoir in accordance with Option B on DEIR p. 2-86. The commenter also objects to construction access through the Sugarloaf Open Space. These objections are based on concerns regarding the impact of construction traffic on quiet residential roads.

The New Leland Pressure Zone Reservoir is discussed at a programmatic level of analysis in the DEIR (see Table S-2, DEIR p. S-5). The reservoir construction and the associated construction access routes will be analyzed in-depth in a project-level EIR. As part of this EIR, EBMUD will consider these comments regarding potential traffic impacts indicating that Option B may not be a feasible access route to the preferred reservoir site. Mitigation measures similar to Measures 3.8-1 and 3.8-7 (DEIR p. 3.8-24) likely would be required for the New Leland Pressure Zone Reservoir and Pipeline.

DM-2 See **Response DM-1**.

DM-3 See **Response DM-1**.

From: Marney Ackerman [mailto:pilikianui@webtv.net]
Sent: Tue 9/12/2006 7:45 PM
To: Harlow, Nora
Subject: pumping station

We have just been informed of the pump station to be erected in our neiborhood. This is very disturbing considering the value of the many oak trees which can be harmed. Oaks at the corner of Olympic and Boulevard were killed by the construction of the mini mall. Oaks in Rossmoor were kiled by careless construction too close. DMA-1
Arborists must be consulted and advice followed
The area at the end of the trail on Newell would seemto be the better DMA-2
choice with less harm to mature trees. However, are there no other DMA-3
choices , ones which would not impact the neighberhood ? We have lived here 35 years and would hate to have the value of our property reduced should this pump station be placed so close with terrible consequences DMA-4
to the landscape.
Thank you for your attention to this matter.

David and Marney Ackerman
3375 Freeman Rd.
Walnut Creek 94595

2.34 David and Marney Ackerman

DMA-1 This comment is presumed to address the alternative site for the Tice Pumping Plant. EBMUD staff is recommending the proposed site on the south side of Olympic Boulevard for Board approval. For either the preferred site, where the District is proposing to remove trees, or the alternative site, where no trees are proposed for removal but where potential damage to trees could occur, Measures 3.6-1a to 3.6-1e (DEIR pp. 3.6-33 and 3.6-34) would require that damage to trees be minimized and that a certified arborist be consulted.

DMA-2 See **Response DMA-1**, above.

DMA-3 Please note that biologists who visited the alternative Tice Valley Pumping Plant site concluded that while potential tree damage could occur, development of the site would not require the removal of any protected trees (DEIR p.6-40) and that mitigation measures could be implemented to minimize potential damage to trees (Measures 3.6-1a – 3.6-1c, DEIR p. 3.6-33). As described in Table 6-1 on DEIR p. 6-4, on DEIR pp. 6-64 – 6-65, and as shown on the map in DEIR Appendix J, four potential sites were evaluated for the Tice Pumping Plant, two of which are presented in the DEIR (the preferred site south of Olympic Boulevard and the alternative site north of Olympic Boulevard). The two other sites were considered and rejected. Site 1 was rejected based on adverse effects to adjacent businesses. Site 4 was rejected because it was located in an entirely residential area and therefore was less desirable than the sites located at the intersection of Olympic and Tice Valley Boulevards.

DMA-4 Refer to Section 2.1.5, Master Response on Social and Economic Costs.

Comment Letter DR

-----Original Message-----
From: Dave Richardson [mailto:DRichardson@rmcwater.com]
Sent: Tuesday, July 18, 2006 2:51 PM
To: Water Treatment Transmission Improvements Program
Cc: Harlow, Nora
Subject: FW: EBMUD Public Meeting- Orinda 8/2/06; Comment on Long-Range Programmatic Facilities in Vicinity of EBMUD Orinda Filter Plant

Here is my comment, below.
David L. Richardson, PE
99 Tara Road
Orinda, CA 94563

Subject: RE: EBMUD Public Meeting- Orinda 8/2/06; Comment on Long-Range Programmatic Facilities in Vicinity of EBMUD Orinda Filter Plant

I am particularly interested in what is planned for future years on the sports fields and working with EBMUD to get their storage facilities and clear wells built at grade/below ground so that the sports fields can be replaced on top of them. This approach minimizes the visual impact of the project, minimizes the impact on the community regarding the loss of recreational facilities in the Wagner Ranch area of Orinda, and creates a substantial asset for EBMUD with long-term revenue potential as the land will be providing multiple benefits to the community.
Thanks, David L. Richardson, PE

DR-1

2.35 David Richardson, PE

DR-1 The facilities that may occupy the Orinda Sports Field include the ultraviolet disinfection building, chlorine contact basin, and clearwell. All three of these facilities are program-level elements of the DEIR and require future study. The bottom elevation of the clearwell is constrained by the elevation of the Claremont Tunnel and the diameter of the clearwell is constrained by the geometry of the site. EBMUD cannot determine the final configuration of the clearwell until a study is completed to determine the required storage volume. At that time the multiple use concept will be analyzed. A subsequent CEQA document will be published to discuss the potential impacts of the clearwell prior to final design and construction of the facility.

As discussed in Section 3.3 of the DEIR, Visual Quality, program-level facilities would be largely below grade, but could include low-profile, above-ground features. Mitigation measures, including preparation of site-specific landscape plans and aesthetic treatment of proposed new structures (similar to Measures 3.3-2a through 3.3-2c), would be implemented to minimize visual impacts. As described in Section 3.2 of the DEIR, the Orinda Sports Field will be moved from the Orinda WTP property to a new location as part of the Montanera development prior to proposed construction. This new location would provide recreational value similar to the current location.

Dana Dumas Sankary
62 Van Ripper Lane
Orinda, CA 94563

September 17, 2006

EBMUD
Ms. Judy Zavadil
Senior Project Manager
375 Eleventh Street
Oakland, CA 94607

Re.: Water Treatment and Transmission Improvements Project

Dear Ms. Zavadil:

I live at 62 Van Ripper Lane in Orinda, just around the corner from the Happy Valley Pumping Plant and Pipeline proposed to be built on Lombardy Lane. The first notice my family received of this proposed project was just before the 8-2-06 final public meeting to review the Draft Environmental Impace Report. Before the meeting, I reviewed the information on the EBMUD website, including the DEIR, to try to determine the potential impact of the project on my family and the other areas of Orinda. Although I am an attorney, and very used to reviewing compicated documents, I found the DEIR and other information on the website to be very confusing. For example, it was unclear whether the noise, traffic congestion, and other analyses were referring to the construction phase or operations stage, and I found virtually no information regarding any logical reason the improvements need to be made in Orinda. I have since learned that very little, if any, of the water will be used by Orinda residents and that there is no other basis for the disparate burden this project would have on Orinda residents and neighborhoods. DS-1 DS-2

When I was unable to obtain meaningful answers to my questions on the website, I attended the 8-2 meeting. At the meeting, the EBMUD representatives were asked many of the questions I had, such as how noisy will the Happy Valley station be during operations, i.e. can you hear it from 200 feet away, 400 feet away, is the noise comparable to an air conditioning unit coming on, etc. The answers given by EBMUD were as unclear as the DEIR, and appeared to be intentionally evasive, such as saying the level of noice depended on the sensitivity of the individual. It was also unclear how precautions such as directing vents away from houses could be accomplished where there are houses on most, if not all, sides. It was also not explained whether, during operations, there will be traffic in and out of that site which would cause safety issues even after the lengthy construction is completed. DS-3 DS-4 DS-5 DS-6

In short, the concerns of my family have not been addressed either by the DEIR or the meeting I attended. They include:

1) The noise level both during the construction and operations periods; DS-7
2) Blocking access to and from our home – In addition to the normal concerns shared by all of the residents, my husband is a physician with critically ill patients and must be able to quickly get from our house to the hospital at all hours of the day and night without delays due to construction; the limited number of ways in and out of the neighborhood create an unusual problem, especially where the construction period is so long; DS-8
3) The proposed location of the Happy Valley Pumping station is at an already dangerous curve on Lombary Lane – the cars coming from the direction of Dalewood Drive cannot see around the curve so that stopped vehicles or workers in the street would not be visible until it may be too late for the cars to slow down or stop; after construction is complete, the blind curve makes it dangerous for vehicles to be going in and out of the station; DS-9
4) There is no identified need to locate these water improvements in these heavily populated, exclusively residential, areas of Orinda where residents have paid a very high price for the peace and quiet of their neighborhoods; the system is to serve other areas and there are other more industrial or isolated spaces that should be available to house the elements of this project that will not have such an unfair impact on Orinda residents' homes and quality of life; DS-10
5) From the information provided, the construction for the Happy Valley station will last one to years and, as I understand it, that does not include the time necessary for the pipeline work along Lombardy Lane; from the amount of construction in the neighborhood by private owners, the inconvenience and traffic congestion is substantial; a project of this magnitude lasting over a number of years will severely overburden the streets in the Sleepy Hollow neighborhood – both in terms of traffic congestion and in terms of wear and tear on the streets from heavy trucks and equipment; since the condition and repair of Orinda streets is already a substantial issue the City is trying to address, this project will seriously compound an already substantial problem. DS-11

On behalf of my family and neighbors, I am requesting that EBMUD find another location in an industrial or more isolated area for this project. DS-12 Although, at a minimum, EBMUD owes the residents of Orinda much more information about the project and involvement in decisions concerning it, the overriding fact is that this is the wrong location for this project. DS-13

Very truly yours,

Dana Dumas Sankary

cc: Victoria Robinson Smith, Orinda City Council

2.36 Dana Dumas Sankary

DS-1 EBMUD regrets any confusion the commenter experienced reviewing project materials. The DEIR is necessarily complex because the WTTIP projects are complex and numerous. The organization of the DEIR project description and the need for cross-referencing reflect a balancing of CEQA directives to be concise and avoid redundancies while meeting the requirements specified in CEQA Guidelines Section 15124 (contents of a project description).

The impact analyses are presented in Chapter 3 and divided by topical area. The evaluation of impacts associated with construction and impacts associated with operations varies by topic. In Section 3.10, Noise and Vibration, Impact 3.10-1 (beginning on DEIR p.3.10-8) addresses construction-related noise at project sites; Impact 3.10-2 (beginning on DEIR p.3.10-33) addresses noise from trucks along construction haul routes; Impact 3.10-3 (beginning on DEIR p.3.10-38) addresses vibration from construction; and Impact 3.10-4 (beginning on DEIR p. 3.10-40) addresses noise increases during facility operations. The DEIR analysis of traffic impacts focuses on potential impacts during construction of the various proposed WTTIP facilities. As described on DEIR pp. 3.8-7 and 3.8-8, the Project would not cause significant long-term (operational) traffic effects because the various project facilities, once installed, would only require periodic maintenance activities. On average, EBMUD's Operations and Maintenance staff would visit the Happy Valley Pumping Plant four or five times per month (for operations and maintenance activities and landscaping).

DS-2 Refer to Section 2.1.2, Master Response on Benefits to Orinda, and Section 2.1.4, Master Response on the Need for and Alternatives to the Happy Valley Pumping Plant and Pipeline project.

DS-3 The comment regarding events at the meeting is noted.

DS-4 The public meetings were held for informational purposes. Answers to questions posed at the meetings were attempts to provide immediate information, but as was stated were not meant to be a substitute for the detailed information in the DEIR or responses provided to comments submitted in writing. The responses to questions at the meeting were not intended to be evasive, but instead were intended to ensure that EBMUD addresses community concerns.

Table 3.10-8 (DEIR p. 3.10-42) presents estimated noise levels for operation of the pumps (53 dBA, Leq) and transformer (23 dBA, Leq) at the residence located 50 feet to the east of the DEIR Proposed Happy Valley Pumping Plant.[1] Other nearby residences are 180 feet to the west, 200 feet to the north, and 350 feet to the south of the pumping plant site (DEIR p. 3.10-25). The residence to the east is the closest, and noise levels

[1] The residence is 90 feet east of the proposed pumping plant transformer.

would be highest at this location. If maximum noise levels at the residence to the east are reduced to meet local nighttime limits, then noise levels at other residences located farther away would be relatively lower and would also meet nighttime limits. CEQA requires evaluation of worst-case conditions, and the DEIR provides such an impact evaluation. Table 3.10-8 of the EIR also estimates noise levels at the closest receptor with implementation of Measure 3.10-4. Likewise, mitigated pumping plant noise levels at all other nearby residences would be relatively lower than the mitigated levels listed in this table since these residences are located farther away.

The comment asks whether pumping plant noise could be heard at distances of 200 feet, 400 feet, or at what distance. The commenter is referred to two tables in the DEIR: Table 3.10-2, which list existing noise levels at the site DEIR Proposed Happy Valley Pumping Plant site, and Table 3.10-8, which indicates that pumping plant noise at 50 feet from the pumping plant. Table 3.10-2 shows that this site is subject to average daytime noise levels of averaging 54 dBA (Leq) between 7 a.m. and 7 p.m. (ranging between 51 and 56 dBA, Leq). During the evening hours (7 p.m. to 10 p.m.), noise levels average 50 dBA (Leq), ranging between 50 and 53 dBA (Leq). Noise levels during the nighttime hours (10 p.m. to 7 a.m.) averaged 50 dBA (Leq), ranging between 42 and 53 dBA (Leq). Therefore, at 50 feet from the vent or opening, the pumping plant would be 53 dBA (Leq), and would increase average daytime noise levels to 57 dBA (Leq), a 3 dB increase. For most people, a 3 dB increase is barely perceptible, while a 5 dB increase is readily noticeable. This is consistent with the DEIR findings, which identify potential operational noise impacts associated with this pumping plant as significant. Since all other residences in the vicinity of this pumping plant are at distances greater than 50 feet, the effects of this pumping plant on ambient noise levels would decrease with distance and be less than for the one closer residence. On page 3.10-46, the DEIR requires that sound walls be constructed around the transformer and that building vents or openings be located away from adjacent or nearby sensitive receptors. Based on noise measurements taken at other pump stations, implementation of these design measures can reduce pump noise at the vent by approximately 20 dB. With such a reduction, mitigated noise levels (33 dBA, Leq) would be lower than all measured ambient noise levels at this site, which ranged between 42 and 53 dBA (Leq).

DS-5 The residences closest to the pumping plant would be 50 feet to the east, 180 feet to the west, 200 feet to the north, and 350 feet to the south. Based on these distances, pumping plant noise at the vent opening would be 53 dBA (Leq) at 50 feet, 42 dBA (Leq) at 180 feet, 41 dBA (Leq) at 200 feet, and 36 dBA (Leq) at 350 feet. Locating the vent opening on the south side of the building would generate noise levels below minimum ambient noise levels at the closest residential receptor (measured at 42 dBA, Leq). A sound barrier would be provided opposite this opening to reduce noise levels further at the residence to the south. Refer to **Response DS-4** for information regarding vent openings.

DS-6 See **Response DS-4**. The low level of traffic in and out of the DEIR Proposed Happy Valley Pumping Plant site would not cause traffic safety impacts at either the proposed or the alternative site.

DS-7 See **Responses DS-4** and **DS-5** for discussion of operational noise levels at the DEIR Proposed Happy Valley Pumping Plant site. See **Responses ORIN-87** and **ORIN-88** for discussion of construction noise levels at the DEIR Proposed Happy Valley Pumping Plant site.

DS-8 Note that although the overall construction period for the Happy Valley Pumping Plant and Pipeline could last up to two years, pipeline construction is expected to progress at a rate for 80 feet per day, and at that rate, could be completed in 14.5 weeks. Road closures would occur in segments, between 8:30 a.m. and 4:30 p.m. Monday through Friday. Outside the hours of construction, the road where pipeline construction was occurring would be reopened to traffic. Pipeline construction would not be in front of any one property for very long (1 to 2 days, followed by paving later) There would be no pipeline construction directly on Van Ripper Lane. For vehicles traveling to 62 Van Ripper Lane during pipeline construction (between 8:30 a.m. and 4:30 p.m. Monday through Friday), detour routing would depend on the specific location under construction, as follows (from DEIR p.3.8-21):

- For closures of Miner Road between Oak Arbor Road and Lombardy Lane: detour routing is available via St. Stephens Drive, Via Las Cruces, Honey Hill Road, and Miner Road.
- For closures occurring on Lombardy Lane between Miner Road and Van Ripper Lane: detour routing is available, via Upper Happy Valley Road, Happy Valley Road, Sundown Terrace, and Dalewood Drive.

For closures occurring on Lombardy Lane east of Irving Lane, 62 Van Ripper Lane could be accessed via Irving Lane.

Access disruption to land uses and streets for both general traffic and emergency vehicles during WTTIP construction is analyzed in the DEIR under Impact 3.8-5. As stipulated in Measure 3.8-1, access for emergency vehicles would be maintained at all times, and owners or administrators of sensitive land uses such as hospitals would be notified in advance of the timing, location, and duration of construction activities and the locations of detours and lane closures. If hospital personnel must respond to an emergency, EBMUD will accommodate their needs as soon as the District receives notice regarding these needs.

DS-9 Measure 3.8-1 (DEIR p. 3.8-14) will require the contractor(s) to comply with roadside safety protocols, including provision of "Road Work Ahead" warning signs and signs informing drivers of double fines for speed infractions in a construction zone to achieve required speed reductions for safe traffic flow through the work zone. In addition, the location of the DEIR Proposed Happy Valley Pumping Plant is between two all-way

stop-control intersections, at Lombardy Lane / Van Ripper Lane and Lombardy Lane / Dalewood Drive. It is therefore reasonable to expect that the speeds of vehicles passing the project site would not be fast, and the above-cited mitigation measure will ensure less-than-significant traffic safety impacts. The estimated maximum trip generation (34 one-way vehicle trips per day, and 2 one-way truck trips per hour) on Lombardy Lane would occur for up to an estimated two weeks. Although the added traffic could be noticeable to residents, the effect on traffic flow would be less than significant because the traffic volumes would still be clearly less than the carrying capacity of the road. Regarding traffic associated with operations and maintenance activities see **Response DS-6**.

DS-10 Refer to Section 2.1.2, Master Response on Benefits to Orinda, and Section 2.1.4, Master Response on the Need for and Alternatives to the Happy Valley Pumping Plant and Pipeline project.

DS-11 See **Response DS-8** regarding construction duration. See **Response DS-9** regarding the estimated maximum project trip generation for the DEIR Proposed Happy Valley Pumping Plant site. The DEIR discusses the potential for wear and tear on streets under Impact 3.8-7, pp. 3.8-22 and 3.8-23. As stated on those pages, residential streets are generally not built to withstand substantial truck traffic. The DEIR includes Measure 3.8-7, which stipulates that, prior to and after completion of project construction, road conditions will be documented for all routes used by project-related vehicles. The measure, which is proposed to mitigate this potentially significant impact, also states that roads damaged by construction will be repaired to a structural condition equal to that which existed prior to construction activity.

DS-12 This comment expresses opposition to construction of the Happy Valley Pumping Plant. Please note that District staff is recommending that the EBMUD Board of Directors approve the Happy Valley Pumping Plant Alternative site. The various alternatives considered for the Happy Valley Pumping Plant and Pipeline project, and the reasons each was rejected, are described on DEIR pp. 6-61 and 6-62.

DS-13 The Happy Valley Pumping Plant and Pipeline is scheduled for construction in 2011. EBMUD will periodically update the City of Orinda and other interested parties (through its website and other means to be determined) as development of the project progresses. EBMUD will also consult with the City of Orinda as noted in the DEIR.

Comment Letter EE

EBMUD

Water Treatment & Transmission Improvements Program
Draft Environmental Impact Report

Name: Ed Elkins
70 Rudgear Drive
Address: Walnut Creek, CA 94596
eelkins@sbcglobal.net
Email:

COMMENTS:

Comments and questions concerning the proposed Leland 9 million gallon water tank SE of the intersection of I 680 and Rudgear Road:

- Rudgear Drive is not stable enough to carry truck traffic. Check 10 year EBMUD maintenance history along street…particularly south (up hill) of 51 Rudgear Dr. — EE-1
- Rudgear Drive is too narrow for truck traffic. Flagmen will be required. With 84 trucks per day for over one year, restrictions on resident traffic will be unlivable. A typical day schedule should be shown in order to visualize the huge restrictions on travel by the residents. The road will be blocked for each truck up the hill…and for each truck down the hill. — EE-2
- Rudgear Drive has at least two totally blind curves. It will unsafe for truck traffic…particularly random trips and support vehicles. — EE-3
- Replacement of the cement roof on the Lafayette tank should be seriously reconsidered in light of modern methods. An unbiased consultant should contact the chemical/oil/water industries for newer methods…for example, spun Styrofoam roofs. Should be considerably cheaper than a completely new tank and avoid the installation problems of a new tank.. — EE-4
- The land owned by EBMUD in the middle of the Sugarloaf area could be traded for a better site with better access. A re-look at supposed restricted sites should be done using the trade off approach. — EE-5
- A number of other viable sites (elevation, etc.) are listed. The EIR report should list the responses to EBMUD, and by whom, to the proposal to use the other sites. Any legal restrictions mentioned should be sighted in detail. — EE-6

Submit this form as you leave this meeting, mail or hand deliver the form to EBMUD at Mail Stop # 701, 375 Eleventh Street, Oakland, CA, or email comments to Judy Zavadil, Senior Project Manager, at wttip@ebmud.com.

NOTE: Comments on the Draft EIR must be received by EBMUD by August 25, 2006, at 4:30 pm. Comments should be in writing and include your name and address.

2.37 Ed Elkins

Please note that the New Leland Pressure Zone Reservoir is examined at program level of detail in the WTTIP EIR. EBMUD is committed to engaging in a project-level EIR at an appropriate date in the future. Refer to Section 2.1.6, Master Response on the New Leland Pressure Zone Reservoir Alternatives, for more information.

EE-1 See **Response WC-35** regarding consideration of alternative routes to the identified New Leland Pressure Zone Reservoir site.

EE-2 See **Responses WC-22** and **WC-35**.

EE-3 See **Response WC-35**.

EE-4 In 1995 the condition of the roof was evaluated in the Concrete Reservoir Roof Repair and Replacement Study by J. Carollo Engineers. The study recommended that the roof as well as the columns and beams that support it be replaced. The District is not aware of any construction techniques that can replace the roof without taking the reservoir out of service. Floating roofs do not function well in these open cut reservoirs because the walls slope inward.

The reservoir has needs beyond the roof repair. The California Department of Water Resources, Division of Safety of Dams (DSOD) has requested that Leland Reservoir's spillway crest be structurally lowered from elevation 359.2 to 357. DSOD has accepted as an interim measure our lowering of the maximum reservoir operation level to elevation 357, but insists that our long term plans for the reservoir include providing additional structural freeboard for the dam.

Leland Reservoir will need to be removed from service for an extended period of time whether it is replaced or repaired. Storage elsewhere serving the Leland Pressure Zone is required to support the pressure zone during this construction period.

EE-5 As stated above, feasible alternatives will be evaluated in a future project-level EIR. Please see **Response WC-37** which states that "the open space areas adjoining the New Leland Pressure Zone Reservoir were purchased using funds collected by an assessment and cannot be sold without public approval; requiring a two-thirds vote of the public." The District will continue discussions with the City of Walnut Creek, but trading land within the open space for a better site does not appear to be a feasible alternative.

EE-6 Sites 1, 2, and 6 require the use of open space owned by the City of Walnut Creek (see DEIR pp. 6-65 and 6-66). The City of Walnut Creek has stated that sale or conveyance of open space land is restricted by Government Code Section 38502. Please refer to **Response WC-37**.

Comment Letter EP

-----Original Message-----
From: McGowan, Timothy On Behalf Of Water Treatment Transmission Improvements Program
Sent: Thursday, July 06, 2006 9:04 AM
To: 'Ed Presten'
Subject: RE: Draft EIR

Dear Mr. Presten,

Thank you for taking the time to read our environment impact report. The information given to you at the Orinda Meeting on 6/27 is correct. Please review location maps A1 & B1. The solid line on the map represents the portion of the pipe alignment that will be in a tunnel and the dashed line on the map represents the portion of the pipe alignment that will be installed using open trench construction. A description of open trench construction can be found in Figure 2-9 on page 2-38 of the Draft EIR. El Nido Ranch Road is in the open trench portion of the pipe alignment. Appendix C only lists the properties that are within 50 feet of the centerline of the proposed tunnel portion
of the alignment. I would also encourage you to look at Map C-OLA-4 that gives an aerial view of the pipe alignment in the vicinity of your property.

Please feel free to send a response e-mail to WTTIP@ebmud.com if you have any additional questions and/or comments to the Draft EIR.

Sincerely,
Timothy McGowan
Associate Civil Engineer

-----Original Message-----
From: Ed Presten [mailto:edpresten@peoplepc.com]
Sent: Thursday, June 29, 2006 8:30 PM
To: Water Treatment Transmission Improvements Program
Subject: Draft EIR

Dear Ms. Zavadil, you may recall that we spoke on 03/03 in response to my letter to you dated 01/05/06 . Our property at 1025 Via Nueva abuts Sunnyhill Road which intersects El Nido Ranch Road. At the meeting in Orinda on 06/27, I asked about the effect to private property if the tunnel is constricted under the alternative 2 proposal, and was told it would only be the trenching during the construction period.

I viewed the CD given out at the meeting, and under appendix C of properties within 50 feet of the centerline of the proposed tunnel, it does not list Sunnyhill Rd or El Nido Ranch Rd. I am curious why, as I understand the tunnel would be on El Nido Ranch Rd and there are homes on this street.

As stated in my 01/05/06 letter, my main concerns are the impact of the tunnel [or aqueduct] that runs under our property, and our access at the
rear of our property via Sunnyhill Rd. Ed Presten

EP-1

2.38 Ed Presten

EP-1 Refer to the e-mail response from EBMUD printed above **Comment EP-1**.

Comment Letter FAP

8/24/2006

To Whom It May Concern,

As a resident on 121 Rudgear Drive, I am very concerned about the proposed routing of the Leland Reservoir Site/Walnut Creek. We were recently informed by a representative from the EBMUD that the following would be occurring while creating the new water reservoir.

1) Trucks will be driving up and down the steep and windy Rudgear Drive 84 times per day for two years. This is unacceptable. The road is very narrow, has blind curves, and is already in poor condition. Truck traffic will cause extensive delays that need to travel to/from the grocery store, doctors appointments etc. As an elderly resident I am very concerned that access will be limited, particularly in the case of an emergency. The noise and fumes of the truck traffic will be extensive. Restricting traffic from 9-4 will still result in high nose/fume levels for much of the day for residents. FAP-1 FAP-2 FAP-3
    a. There are at least two other options that could be viable. ***I request that each of these options be carefully considered and the pros/cons, with data, be presented to the residents of the community.*** There clearly are other roads that could be used for access and would have less impact. FAP-4

It is not up to the residents to find these solutions: it is the job of paid engineers and consultants to exhaustively compare options and present residents with clear data and interpretations.

2) It is not clear that all aspects of the Leland Reservoir Site/Walnut Creek siting have been critically evaluated. For example, there is an annual wetland environment at the edge of the open space that will be consumed by this project. This wetland is a habitat for many species of wildlife, including migrating ducks. ***The environmental impact of destroying this habitat must be considered.*** FAP-5

Felix and Ann Pallavicini
121 Rudgear Drive
Walnut Creek, CA 94596
925 939-7950

2.39 Felix and Ann Pallavicini

Please note that the New Leland Pressure Zone Reservoir is examined at program level of detail in the WTTIP EIR. EBMUD is committed to engaging in a project-level EIR at an appropriate date in the future. Refer to Section 2.1.6, Master Response on the New Leland Pressure Zone Reservoir Alternatives, for more information.

FAP-1 See **Response WC-22** regarding the detailed construction traffic information and the intent to evaluate impacts to Rudgear Road or other access routes in detail in a later project-level EIR. Refer also to **Response WP-35** regarding evaluation of alternative access routes to the New Leland Pressure Zone Reservoir. Implementation of DEIR Measures 3.8-1 (p. 3.8-14) and 3.8-7 (p. 3.8-23) would address some of the traffic safety and roadway wear-and-tear issues raised in this comment.

FAP-2 See **Response WC-35** and Measure 3.8-1 (DEIR p. 3.8-14, tenth bullet) and the discussion on DEIR p. 3.8-20 addressing potential disruption to emergency vehicular access and steps to avoid these disruptions.

FAP-3 See **Response DCAY-5**, which addresses similar issues relative to truck traffic associated with the identified New Leland Pressure Zone Reservoir site.

FAP-4 The DEIR has not determined a preferred alternative access route to the New Leland Pressure Zone Reservoir. As noted above, this analysis will be done as part of the planning to develop the project for consideration at a project level.

FAP-5 This project will undergo detailed evaluation of potential biological impacts prior to implementation (in a project-level EIR) and the presence of wetlands and wildlife habitat will be considered at that time.

Comment Letter GA

7-13-06
Public Mtg
Lafayette.

EBMUD

WATER DISTRIBUTION
JUL 13 2006
PLANNING DIVISION

Water Treatment & Transmission Improvements Program
Draft Environmental Impact Report

Name: Greg Aliosh in.

Address: 3792 Mosswood Drive, Lafayette, CA 94549

Email: _____

COMMENTS:

See attached of January 10, 2006.

Submit this form as you leave this meeting, mail or hand deliver the form to EBMUD at Mail Stop # 701, 375 Eleventh Street, Oakland, CA, or email comments to Judy Zavadil, Senior Project Manager, at wttip@ebmud.com.

NOTE: Comments on the Draft EIR must be received by EBMUD by August 25, 2006, at 4:30 pm. Comments should be in writing and include your name and address.

Comment Letter GA

January 10, 2006

Mr. Steven Falk
Lafayette City Manager
3675 Mr. Diablo Blvd.
Room 201
Lafayette, CA 94549

Subject: East Bay Municipal Utility District
Lafayette Water Treatment Plant

Dear Mr. Falk:

We have enclosed a copy of the letter we sent to the East Bay Municipal Utility District for your information.

This letter addresses our primary concerns regarding the East Bay Municipal Utility District Water Treatment and Transmission Improvements Program project.

We will appreciate any consideration you may give our concerns if the City of Lafayette participates in any way in this project.

GA-1

Sincerely,

Greg Alioshin

Comment Letter GA

January 10, 2006

Ms. Judy Zavadil, Senior Civil Engineer

East Bay Municipal Utility District
Mail Slot 701
375 Eleventh Street
Oakland, CA 94607-4240

Subject: Revised notice of preparation
Water treatment and transmission improvements program
Alameda and Contra Costa Counties
Environmental impact report
(SCH #2005092019)

East Bay Municipal Utility District

Re: Lafayette Water Treatment Plant
Environmental Impact: noise

Dear Ms. Zavadil:

We have reviewed the above subject documents and offer the following comments.

We have lived for the last 30 years across the street, Mount Diablo Blvd., and approximately 100 feet south east of the Lafayette Water Treatment Plant in the neighborhood called Sunset Village.

East Bay Municipal Utility District has been a good neighbor except for a few significant exceptions; when the southeast portion of the Lafayette Water Treatment Plant site has been used for receiving, storage, and distribution of materials. This has included the use of large trucks and equipment such as backhoes, which generate loud engine noises and vehicle backup warning alarms. These noises are heard in our homes and are very disturbing during the day, and when it has occurred during the night, sleep has been impossible. GA-2

Because of the noise generated by construction and the environmental impact this will have on our neighborhood we request that alternate 2 be pursued. GA-3

However, if alternate 1 is selected, we request that you include in the Environmental Impact Report noise abatement provisions. These provisions should be for both construction and for the typical use of the southeast portion of the site.

Noise Abatement Provisions should include the following: Truck site access, material receiving, storage, and distribution, both during construction and as typical site use, should be located as far northwest as possible, no closer than the existing main entrance. The existing southeast site, including its entrance, should not be used for these purposes. We request that these provisions be included in the Environmental Impact Report. GA-4

We appreciate the services that East Bay Municipal Utility District has provided us. Our comments are intended to keep a good neighborhood relationship between the Lafayette Water Treatment Plant and the Sunset Village residential area.

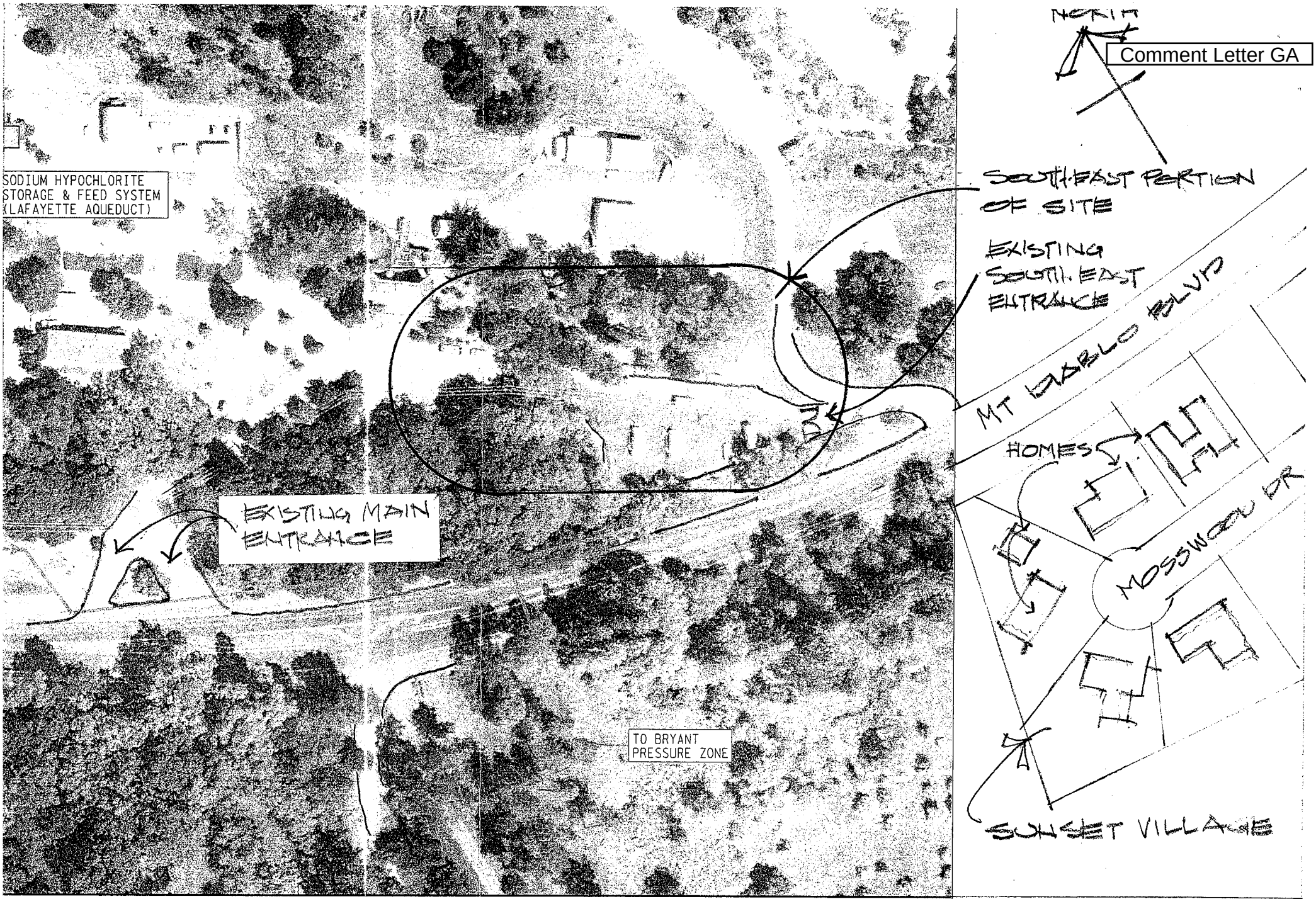
Sincerely,

Greg Alioshin
3792 Mosswood Drive
Lafayette, CA 94549
925-284-9598

Encl: Site Plan

CC: Mr. Steven Falk
Lafayette City Manager
3675 Mt. Diablo Blvd.
Room 201
Lafayette, CA 94549

Comment Letter GA



WATER TREATMENT AND TRANSMISSION IMPROVEMENTS PROGRAM
LAFAYETTE WTP ALT. 2 – SITE PLAN
ATTACHMENT 4

SITE PLAN
10 JAN 06

2.40 Greg Alioshin

GA-1 Comment noted.

GA-2 Section 3.10 of the DEIR, Noise and Vibration, includes a full discussion of noise impacts due to construction and operation of new facilities at the Lafayette WTP. This section also describes mitigation measures that will be implemented to reduce noise impacts to less-than-significant levels. Implementation of Measures 3.10-1a and 3.10-1b would address noise levels above ambient noise levels during construction at Lafayette WTP. Implementation of Measure 3.10-4 would ensure that pumps and other facilities at the Lafayette WTP are designed to maintain operational noise impacts at a less-than-significant level.

No treatment facilities are proposed to be located in the southeast portion of the site (area encircled on the commenter's attached map). However, new pipelines would be constructed along the north side of Mt. Diablo Boulevard within 300 feet of the closest residential receptors in this neighborhood. As indicated in Table 3.10-5 of the DEIR, operation of trucks and impact equipment could exceed the 70-dBA speech interference criterion at the closest residential receptors in this neighborhood. Noise controls outlined in Measure 3.10-1a on DEIR p. 3.10-30 would be required to reduce this potential impact to a less-than-significant level. Pipeline construction would progress along the alignment so that maximum construction noise levels would not occur at any one receptor for more than about two weeks (plus a few more days for paving the trench).

Implementation of DEIR Measure 3.10-1b would require adjusting proposed construction hours for noise-producing activities to be consistent with those in the Lafayette Noise Ordinance (8:00 a.m. to 8:00 p.m.) except during critical water service outages or other emergencies and special situations. As detailed in a change to Measure 3.10-1b (See Section 3.2 of this Response to Comments document) "EBMUD will coordinate with local agencies regarding noise controls for any construction work that needs to occur after 6:00 p.m. and before 7:00 a.m."

GA-3 The commenter's preference for Alternative 2 is acknowledged. As stated on DEIR p. 3.10-17, Alternative 2 would avoid some of the potential noise impacts at the Lafayette WTP that would be associated with Alternative 1 (significant but mitigable). However, much more significant noise impacts would occur along the Orinda-Lafayette Aqueduct alignment, including the tunnel entry and exit shafts and along the pipeline alignment in El Nido Ranch Road. This alternative would still result in the same pipeline-related construction noise impacts on the Sunset Village neighborhood that would occur under Alternative 1. Under Alternative 1, pipeline construction would generate the highest construction noise levels in this neighborhood, although for a shorter period of time than treatment facility construction.

Section 6.11.1 of the DEIR (DEIR p. 6-66), provides a comparison of the No Project Alternative, Alternative 1 and Alternative 2. Given the whole of the environmental analysis, Alternative 1 is considered environmentally superior to Alternative 2.

GA-4 Refer to **Response GA-2**. Design for the areas of the Lafayette WTP that would be used during construction is still underway, but EBMUD intends to primarily use the main entrance. To the extent that areas east of the main entrance are used for construction staging, then the noise mitigation measures described in **Response GA-2** would apply.

No new facilities are proposed west of the main entrance road except for a raw water control valve and flow meter facility. This facility would be located over 800 feet from the closest residential receptor in the Sunset Village neighborhood.

The typical current uses of the southeast portion of the site as identified in the site plan attached to your letter are not part of the project under either Alternative 1 or Alternative 2. The mitigation measures within this DEIR do not apply to current, on-going operations in the southeast portion of the site. Please note, however, that your comments have been passed on to EBMUD's Operations department.

September 12, 2006

Ms. Judy Zavadil
Senior Project Manager
East Bay Municipal Utility District
Mail Slot #701
375 Eleventh Street
Oakland, CA 94623

Subject:
Water Treatment and Transmission Improvement Program
Draft Environmental Impact Report

RE:
Lafayette Water Treatment Plant
Environmental Impact: Noise

Dear Ms. Zavadil:
This letter supplements our previous letter, dated January 10, 2006, which we sent to you, addressing our concerns about construction noise and daily operation noise at the Lafayette Water Treatment Plant. A copy of this letter is enclosed.

Currently there is a construction project at the Lafayette Water Treatment Plant titled "Lafayette Water Treatment Plant Filter Upgrade". The periodic vacuuming of filters and vehicle back-up alarms can be heard, even though greatly muffled by distance, in our area. However, this volume of noise, given the location and necessity of the project, is acceptable. If this project were located on the southeast portion of the site the noise would be intolerable. Hopefully this information further clarifies the concerns we stated in our previous letter. GA1-1

Thank you for the very informative EBMUD public meetings regarding the Water Treatment and Transmissions Improvement Program.

Sincerely,

Greg Alioshin
3792 Mosswood Drive
Lafayette CA, 94549
925-284-9598

ENCL:
Letter to Ms. Judy Zavadil Dated January 10, 2006
Site Plan dated January 10, 2006
Letter to Mr. Steven Falk dated January 10, 2006 GA1-2

2.41 Greg Alioshin

GA1-1 The commenter's concern about potential noise impacts should certain construction activities occur in the southeast portion of the site, is acknowledged. See **Responses GA-2** and **GA-4** that address this concern. The locations of permanent facilities are shown on in the DEIR on Map D-LWTP-1 for Alternative 1 and Map D-LWTP-2 for Alternative 2. Most of the permanent facilities would be located west of the main entrance gate.

GA1-2 The referenced attachments were submitted as part of Greg Alioshin's earlier letter.

Comment Letter GF

From: Grant Fine [mailto:gwfine@pacbell.net]
Sent: Wednesday, September 06, 2006 9:46 AM
To: Water Treatment Transmission Improvements Program
Subject: EBMUD project in Orinda

EBMUD Board of Directors:
As a resident of Orinda, I am opposed to the proposed plan of expansion for the Orinda Filter Plant for the following reasons:

The Draft EIR that has been submitted is ill conceived and problematic on many levels. GF-1

There is no clearly stated need or requirement in the Draft EIR as to why EBMUD must upgrade and expand the Orinda Filter Plant. GF-2

Locating this large and expanding facility in a residential community is impractical, risky and not necessary. GF-3

Removal of the sports fields will hurt the community and deprive children of much needed recreational playing fields GF-4

Your proposed expansion is contiguous to an elementary school. GF-5

Additional structures proposed will be unattractive and will counter the semi-rural charter in the City of Orinda. GF-6

Camino Pablo is designated a scenic corridor. EBMUD is planning to build multiple multi story buildings and huge storage tanks that will be visible from the corridor and therefore violate the scenic corridor designation. GF-7

No consideration has been given to new technologies for water treatment that would eliminate the need for large storage tanks and additional buildings for water treatment and storage. GF-8

Other EBMUD locations have not been considered as part of this Draft EIR.
- **There are other EBMUD locations where a filter plant could be constructed or expanded that would have NO impact on the City of Orinda and its residents.** GF-9

Our property values will be negatively impacted because of the expansion of the Orinda Filter Plant. GF-10

The community and its residents and The City of Orinda oppose the expansion of EBMUDs Orinda Filter Plant. GF-11

Sincerely,
Grant W. Fine

Grant W. Fine
Fine and Associates
120 Village Square #145
Orinda, CA 94563
Cal PI# PI21085
Cal Bar# 158161
tel: 925-253-0525
fax: 925-253-0545
Website: fineandassociates.com

2.42 Grant Fine

Many of the comments in this letter are similar to comments in the letter submitted by Ann Sharf. Consequently, many of the responses below cross-reference to responses in Ms. Sharf's letter.

GF-1 The opinion regarding the DEIR is noted. Please refer to subsequent responses regarding more specific concerns as well as Section 2.1.1, Master Response on Program- and Project-Level Distinctions.

GF-2 Please see **Response AS-2**.

GF-3 Please see **Response AS-3**.

GF-4 Please see **Responses AS-4**, **BM-2**, and **BM-11**.

GF-5 Please see **Response AS-5**.

GF-6 Please see **Response AS-6**.

GF-7 Please see **Response AS-7**.

GF-8 Please see **Responses ORIN-118** through **ORIN -120,** and **Response BM-9**.

GF-9 Please see **Response AS-9** as well as Section 2.1.5, Master Response on Social and Economic Costs.

EBMUD

Water Treatment & Transmission Improvements Program
Draft Environmental Impact Report

Name: Gail Ford

Address: 3322 Freeman Rd., Walnut Creek CA

Email: gailrford@comcast.net

COMMENTS:

GF1-1 I have very recently been informed that East Bay Municipal Water District is proposing to construct a pumping plant in our neighborhood, and that the "alternative site" now being considered is the property on the north side of Olympic Blvd. I strongly oppose this proposal. This site directly abuts several residential properties in our neighborhood. Building and operating a

GF1-2 pumping plant here would most certainly lower the quality of life of these residents. In addition, building such a

GF1-3 structure on this site would threaten the numerous heritage valley oaks located on and surrounding this property.

GF1-4 With so many residents being directly impacted, and numerous heritage valley oaks being threatened, this site is clearly inappropriate. I trust that EBMWD will reconsider.

Gail Ford

Submit this form as you leave this meeting, mail or hand deliver the form to EBMUD at Mail Stop # 701, 375 Eleventh Street, Oakland, CA, 94607, or email comments to Judy Zavadil, Senior Project Manager, at wttip@ebmud.com.

NOTE: Comments on the Draft EIR must be received by EBMUD by September 18, 2006, at 4:30 pm. Comments should be in writing and include your name and address.

2.43 Gail Ford

GF1-1 EBMUD staff is not recommending selection of the Tice Pumping Plant alternative site. However, approval of WTTIP projects and project locations is at the discretion of the EBMUD Board of Directors.

GF1-2 Refer to Section 2.1.5, Master Response on Social and Economic Costs.

GF1-3 See **Response AH-2**.

GF1-4 See **Responses GF1-1** and **AH-2**. EBMUD acknowledges the commenter's objection to the site.

Comment Letter GH

From: CSIP [mailto:CSIP]
Sent: Thursday, July 13, 2006 4:17 PM
To: Plumb, Marie
Subject: Subject Matter Expert Inquiry Handoff Number 62914

Hello,

An individual has contacted us with a request for certain information. You have been identified as the Subject Matter Expert in this field.

Subject: Office of the Secretary SME
Handoff Number: 62914

This person's contact information and a description of their request follows:

Contact Info:
Name: Gayle Hirschfeld
Phone: email
Address: No address given
City: No city given
Zip: No zip given

Their Inquiry:
I read in the paper today about the proposed water tank to be build at the Lafayette Reservoir. PLEASE reconsider the location. So many people use the upper trail throughout the year. It provides such a beautiful, natural landscape of our oak woodlands. And where would all the birds go? Certainly out of our sight. Furthermore, the location is much faster to get to than, for instance, Briones or the Oakland Hills sites. I would prefer if you spend a little more of my tax dollars and build the tank on a more remote site, one that cannot be seen from the path. It would take more than my remaining lifetime to have new trees grow to the size of the current ones and the tank would never be completely camouflaged. It would be obtrusive, as it is on the far end. Thanks for your attention...
Gayl Hirschfeld gaylh@comcast.net

GH-1

2.44 Gayle Hirschfeld

GH-1 Please see **Response EBMUD_NR-3** regarding visual impacts. Please see **Response EBMUD_NR-4** regarding EBMUD's alternatives analysis.

Comment Letter GN

-----Original Message-----
From: Greg Norman [mailto:greg94595@yahoo.com]
Sent: Sunday, August 13, 2006 3:36 PM
To: Water Treatment Transmission Improvements Program
Subject: Olympic Blvd Pumping Station

To Judy Zavadil - EBMUD:

Judy, in light of the suggestion that is currently circulating amongst the neighborhood that the Tice/Olympic pumping station be located on the north side of Olympic rather than the south side as proposed by EBMUD, I have to say the north side makes a lot more sense. I hope we see an alternate proposal for the north side, soon. GN-1

Thank you for cosidering this suggestion.

Greg Norman
2511 Olympic Blvd.
(925) 935-6023

2.45 Greg Norman

GN-1 EBMUD staff is recommending the proposed site south side of Olympic Boulevard for approval by the Board of Directors. The proposed site is recommended because it has fewer nearby residences that would be directly affected by the construction and operation of the plant than the alternative site north of Olympic Boulevard.

Comment Letter GP

East Bay MUD
Judy Ravadil
Senior Project Engineer
MS #701
375 Eleventh St.
Oakland, Ca. 94607-4240

Gerald Perry
49 Sleepy Hollow Lane
Orinda, Ca. 94563

9/7/06

WATER DISTRIBUTION
SEP 1 1 2006
PLANNING DIVISION

Re: WTTIP draft EIR comments.

Dear Ms. Zavadil,

I have reviewed the EIR regarding the Happy Valley Pumping Plant and Pipeline, Orinda-Lafayette tunnel/pipline and the Lafayette Filter Plant.

My comments are as follows:

1. Happy Valley Pumping Plant:
The Sleepy Hollow area is a very very quiet section of Orinda where in the summer the crickets dominte the night time sound. An above ground P.P. would generate inappropriately high noise even with sound control. A much better solution is a below ground pumping plant similar to Reliez P.P. on Oak Vista Court, Pleasant Hill. The below ground P.P. would solve the noise problem, the visual problem, the security problem and reduce maintenance costs. I believe that all pumping plants should be below ground plants. GP-1

2. Pipeline:
In 1969 a ground fire occured in the Sleepy Hollow area on a steep hillside. Road work was being done on Miner Road. The road work prevented the fire dept. from quickly reaching the fire. The house was completely lost. GP-2

Therefore, it would be prudent for the District to look into:

A. Installing the pipeline in the shoulder of the road. The road right of ways are 50' wide. In some areas cuts would have to be made and some trees would be cut and perhaps telephone poles moved. In so doing the District would obtain extra room for the pipeline installations allowing cars to pass. Since the pipeline would be off the road no asphalt would be required - just crushed rock. Just widening this road 3 feet would greatly improve its safety for joggers and bikers. GP-3

B. Installation of the pipeline at night. In so doing the road would be open during the day. GP-4

C. Maintaining emergency personal at a deployable location if the road has to be closed. Sleepy Hollow School might be an appropropriate location. GP-5

3. Orinda-Lafayette tunnel:
The Orinda to Lafayette tunnel could be a major problem. The tunnel would have to pass under the Lafayette aquaducts 1 & 2. In so doing they would require shutdown and dewatering. GP-6
If this tunnel were built, the possibility of a seismic collapse is always there. This tunnel should not be built. GP-7

4. Lafayette Filter Plant:
Most of the District is supplied by water from Orinda Filter Plant. Its water is the most economical. However, one plant providing water for so many people and now wanting to add Lafayette to that list is not good judgment. GP-8

Lafayete Filter plant should be enlarged at any expense so that water will be available throughout the District and not concentrated from one location. GP-9

Sincerely,
Gerald Perry

2.46 Gerald Perry

GP-1 EBMUD does not generally construct fully buried pumping plants due to concerns regarding surface water drainage. Generally, buried pumping plants extend up above grade by approximately two to four feet and have a unique set of visual impacts. However, EBMUD intends to design and construct and landscape the Happy Valley Pumping Plant to be consistent with and blend into the surrounding neighborhood. In the past, EBMUD has designed many pumping plants to match surrounding architectural styles (see Figure 9).

Section 3.10 of the DEIR describes potential noise impacts and mitigation measures for the Happy Valley Pumping Plant. Table 3.10-8 lists noise increases during facility operations (Impact 3.10-4). The primary sources of operational noise are from the passive vent openings along the roofline of the pumping plant and from the transformer. A buried pumping plant must be actively vented with an electric fan. Transformers are generally constructed above grade. As such, above-grade and partially buried pumping plants generally have very similar operational noise impacts.

EBMUD does not believe that a buried pumping plant has a lower security risk, as every pumping plant has either a locked site access door or hatch that would be equally accessible to a potential vandal. EBMUD also disagrees that a buried pumping plant has reduced maintenance costs, as below-grade structures require waterproofing, subdrains and active ventilation (i.e. fans), and the on-going maintenance and repair of these features.

GP-2 The DEIR (p. 3.8-20) evaluates access disruption to land uses and streets for both general traffic and emergency vehicles during WTTIP construction. As stipulated in Measure 3.8-1, access for emergency vehicles would be maintained at all times, and owners or administrators of hospitals and fire stations would be notified in advance of the timing, location, and duration of construction activities and the locations of detours and lane closures.

GP-3 EBMUD is not proposing to widen Miner Road or Lombardy Lane as part of the Happy Valley Pipeline construction, nor remove of any trees along these roadways. The specific alignment within the streets will be determined largely by the presence of existing utilities and easements.

GP-4 Pipeline construction during the nighttime hours would be in substantial conflict with construction hourly limits specified in the Orinda, Lafayette, and Moraga noise ordinances. All noise ordinances prohibit nighttime construction. Although zoning ordinance noise limits for mechanical equipment could be applied to any nighttime construction noise, noise generated by pipeline construction would exceed these limits due to the proximity of residential receptors to pipeline alignments, as well as the types of equipment needed for pipeline construction.

GP-5 EBMUD will coordinate with emergency service providers regarding maintenance of vehicular access to areas where road closures would occur due to pipeline construction. The emergency service providers would determine whether to establish a temporary deployment site for emergency vehicles.

GP-6 Construction of the Orinda-Lafayette Aqueduct would not require shutdown and dewatering of Lafayette Aqueducts 1 and 2.

GP-7 Comment noted. Refer to Measure 3.4-2 (DEIR p. 3.4-27) regarding measures to mitigate the effects of seismic ground shaking.

GP-8 Comment noted.

GP-9 This comment, regarding the importance of system redundancy, is acknowledged.

Comment Letter HME

WATER DISTRIBUTION

SEP 1 1 2006

PLANNING DIVISION

EBMUD

Water Treatment & Transmission Improvements Program
Draft Environmental Impact Report

Name: HEINZ & MARTHA EGENSPERGER SEPT. 7, 2006

Address: 111 RUDGEAR DRIVE, WALNUT CREEK, CA. 94596

Email: HEINZEGENS @SBCGLOBAL.NET

COMMENTS:

1- Have you investigated the poibility of placing the water tank on the land you own on Sugar Loaf Open space - We have measured the height of that hill, it is only about 92 feet high - HME-1

2- What impact would the installation of this tank have on my house foundation, patios, pool etc. HME-2

My health, I puffer from asthma. HME-3

Submit this form as you leave this meeting, mail or hand deliver the form to EBMUD at Mail Stop # 701, 375 Eleventh Street, Oakland, CA, or email comments to Judy Zavadil, Senior Project Manager, at wttip@ebmud.com.

NOTE: Comments on the Draft EIR must be received by EBMUD by ~~August 25,~~ Sept. 18th 2006, at 4:30 pm. Comments should be in writing and include your name and address.

Comment Letter HME

WATER DISTRIBUTION

SEP 1 1 2006

PLANNING DIVISION

EBMUD

Water Treatment & Transmission Improvements Program
Draft Environmental Impact Report

Name: HEINZ & MARTHA EGENSPERGER SEPT. 7, 2006

Address: 111 RUDGEAR DRIVE.

Email: WALNUT CREEK, CA 94596

COMMENTS:

3 – The impact of construction equipment on Rudgear Drive would be overwhelming, and devastating on all the residents –

HME-4

thank you.

sincerely

Martha Egensperger

Henry Egensperger

Submit this form as you leave this meeting, mail or hand deliver the form to EBMUD at Mail Stop # 701, 375 Eleventh Street, Oakland, CA, or email comments to Judy Zavadil, Senior Project Manager, at wttip@ebmud.com.

NOTE: Comments on the Draft EIR must be received by EBMUD by August 25, 2006, at 4:30 pm. Comments should be in writing and include your name and address.

2.47 Heinz and Martha Egensperger

Please note that the New Leland Pressure Zone Reservoir is examined at program level of detail in the WTTIP EIR. EBMUD is committed to engaging in a project-level EIR at an appropriate date in the future. Refer to Section 2.1.6, Master Response on the New Leland Pressure Zone Reservoir Alternatives, for more information.

HME-1 In order for storage tanks to work correctly and efficiently, they must be at the proper elevation (within a foot or two). The property in Sugarloaf open space was purchased as a potential reservoir site for the next higher pressure zone.

HME-2 The commenter is concerned with impacts to their house foundation, patio, and pool. Site-specific analysis of slope stability and vibration impacts will occur as part of a project-level EIR for the reservoir project. If that analysis identifies any significant impacts associated with slope stability or vibration, implementation of mitigation measures similar to Measures 3.4-1 (DEIR p. 3.4-25) and 3.10-3a (DEIR p. 3.10-54) would mitigate those effects to a less-than-significant level.

HME-3 Analysis of project-level impacts to air quality associated with the New Leland Pressure Zone Reservoir will take place during a future project-level EIR. With implementation of mitigation measures similar to Measures 3.9-1a, 3.9-1b, and 3.9-1c (see Section 3.9 of the DEIR) impacts to air quality due to increased emissions during construction would likely be reduced to a less-than-significant level.

HME-4 Please see **Responses WC-22** and **WC-35**.

NEIGHBORHOOD PETITION IN OPPOSITION TO TICE PUMPING PLANT ALTERNATE SITE

SEPTEMBER 18, 2006

This petition is submitted on behalf of the Association of Homeowners of Freeman Road and surrounding neighbors in the Saranap community of Walnut Creek (together referred to as the "Homeowners") in opposition to East Bay Municipal Water District's proposal to construct and operate a pumping plant at what is referred to by the District as the Tice Pumping Plant Alternative Site (the "Project"). As set forth in greater detail below, the Homeowners object to the lack of timely or reasonable notice regarding the proposed Project, and the complete lack of detail or consideration of site specific and neighborhood impacts. The Homeowners also object that the proposed land use is inconsistent with the character, use, and quiet enjoyment of our neighborhood, will constitute a nuisance, will endanger a number of heritage valley oak trees, and will have a detrimental impact on all of our property values. In short, this ill-conceived, ill-prepared and ill-considered Project represents an unnecessary and unwelcome intrusion into our residential neighborhood.

HOA-1

HOA-2

As the group of Homeowners most directly impacted by the Project, we are deeply disturbed by the manner in which the Project has been presented to the neighbors. The District has known about the Project for many months (if not years), yet it has neglected to provide the neighbors with adequate notice or information about the Project. For the record, Homeowners in the Freeman Road neighborhood were not informed of the District's interest in the Project until August 29, 2006, at which point the District advised two neighbors that it was considering the installation of a pumping plant in their backyards. We were told at that time that the cut-off date for submitting comments to the Project was September 18, 2006. No specific details, studies or other information was furnished about the proposed Project. The Homeowners were provided with a huge volume of technical data the following week, but none of that information provided any level of detail whatsoever about the Alternate Site or any impacts on the surrounding neighborhood.

HOA-3

HOA-4

The District's engineers met with the Homeowners at the proposed Project site on September 12, 2006. They could only describe the Project at a conceptual level and admitted that no environmental impact studies, arborist studies, traffic studies, property value studies or any specific analysis of impacts had been performed by the District specifically directed at the Alternate Site.

HOA-5

While the District's representative feign concern about the community and potential neighborhood impacts, its actions speak volumes otherwise. The "last minute" notice of the proposal, coupled with the utter lack of detail and analysis of the Project's impacts, has raised a cloud of suspicion and distrust among the Homeowners about the District's competence and the sincerity of its expressions of concern toward our neighborhood. Indeed, the District's handling of the Alternate Site proposal has all the trappings of a project that the District was hoping to slip by the neighbors because it recognizes full well that it cannot withstand close scrutiny.

HOA-6

While the District's engineers apologize for the District's lack of timely notice and detailed information, the fact remains that the neighbors have had less than two weeks to dig through volumes of useless technical data provided by the District, and have been forced to assess the Project's impacts without the aide of any impact analysis or technical assistance. The net effect of the District's actions has been to prejudice the Homeowners' individual and collective ability to oppose this Project. Further, the Homeowners have also been told that they must submit all comments to the Project on September 18, 2006, even though the District has disclosed virtually no detailed information about the Project scope or impacts. Should the District ever provide such detail, we reserve the right to comment on it.

HOA-7

HOA-8

Even absent more specific information, the impacts of the Project on our neighborhood community are considerable. Freeman Road and the surrounding Saranap neighborhoods are among the oldest residential communities in the Walnut Creek area. Our neighborhood is characterized by custom built homes in a charming, rural setting. The neighborhood is comprised of large lots landscaped with mature trees, including one of the oldest surviving stands of heritage valley oak trees in the region.

The neighbors on Freeman Road are a close, friendly supportive group. The neighbors take great pride in the neighborhood. Many of us have spent a tremendous amount of resources, both time and money, to improve, to rejuvenate and to maintain the original charm of the neighborhood. This accounts for the peaceful, open, country feel of Freeman Road, and has contributed greatly to the increased property values throughout that neighborhood. The property values of the homes at the end of Freeman Road most affected by the Project range from $1.4 million to $2.7 million dollars, or more.

From a land use perspective, the placement of a pumping station and related inlet and outlet piping in the midst of our residential community is completely incompatible with the surrounding neighborhood. While the District has not disclosed even a conceptual site plan for the Alternate Site, it is apparent that it will be constructed and operated on a parcel that abuts 3 houses. It also will be situated in close proximity to dozens of other residences.

HOA-9

From a construction stand point, the Project will directly impact the surrounding neighbors, creating noise, dust, and traffic problems. These impacts, particularly dust problems pose serious health and safety risks for some of the elderly and infirm living in nearby homes. Our concern about dust is heightened because the District has apparently performed no soils analysis to evaluate the presence of contaminates that may be sent airborne or otherwise disturbed by heavy construction on, and operation of, the Project. This is a sensitive issue since the adjacent neighbors were advised by law enforcement agencies that chemical contaminates were illegally stored throughout the proposed Project site. Accordingly, we object strenuously to the District's failure to study and evaluate these apparent impacts.

HOA-10

HOA-11

The Homeowners further object to the Project on the grounds that the operation of the proposed facility will result in a nuisance to the neighbors, including, but certainly not limited to, those that abut the proposed site. The operation of the plant, particularly during the quiet evening hours, will interfere with the quiet enjoyment of our neighborhood. HOA-12

All of these factors will have a direct and detrimental impact on property values, not only for those abutting the project, but also for the neighborhood at large. You don't need to be a real estate appraiser to understand that an impact to one person's property value in the neighborhood will resonate through the entire neighborhood, and will impact each and every homeowner. HOA-13

We also are gravely concerned about our heritage valley oaks. These trees are the pride and joy of our neighborhood. A simple drive through the neighborhood reveals a rural enclave of homes nestled among trees and shrubs, springing from two natural waterways that surround us. We have not been provided sufficient notice to retain an arborist to address the specific risks to these trees that are inherent in a project of this nature. Further, no construction details have been made available by the District.

Nonetheless, the impacts to the trees are readily apparent. It does not take an arborist to see that the proposed site is surrounded by large heritage valley oak trees. Many of these trees are over 100 to 150 years old. Many have been marked or tagged by Contra Costa County officials for preservation and are specifically protected by County ordinance and zoning plans. These trees are the focal point of our neighborhood and are among our greatest assets.

The District's claims that it will protect these trees have a very hollow ring to it. First, the District has done nothing whatsoever to study impacts to these trees. Second, the District's interests are of a commercial nature. The Homeowners have witnessed first hand the impact of commercial development on neighborhood trees. In the 1990's, one of the most majestic valley oaks in the county died following the development of the Olympic Village at the corner of Boulevard Way and Olympic Blvd. The tree died despite promises by the developer to protect those trees.

As arborists involved in our neighborhood have explained to the Homeowners from time to time, the health of the entire strand of trees is dependent upon the health of all of the trees. Accordingly, while harm to the trees adjacent to the proposed Project site will directly harm the neighbors who share those trees, the impacts will eventually extend well beyond those trees and those neighbors. HOA-14

Finally, the Homeowners object to the lack of a site specific environmental study. The District has failed to comply with California environmental laws. It has failed to comply with Fish and Game regulations. It has acted in disregard of County tree preservation policies and regulations. It has not studied or properly evaluated traffic problems specific to the proposed Project site (which is located along a blind curve on a well traveled road). HOA-15 HOA-16 HOA-17

In conclusion, the Homeowners object for all the reasons above to the Tice Pumping Plant Alternative Site. We also believe that the best and least obtrusive location for the proposed pumping station is on or adjacent to the parking lot behind the commercial property at the southeast corner of Olympic and Tice Valley. We hope that the District will consider these comments in opposition to the Project. As Homeowners, we reserve all of our rights and remedies under the law with respect to the Project and any damages it may cause all or any one of us. By copy of this Petition, the Homeowners are also advising the Contra Costa County Community Development Department, the Contra Costa County Board of Supervisors, and Supervisor Gayle Uilkema of their objections to the Project. HOA-18

Submitted by The Association of Homeowners of Freeman Road and the following Homeowners:

Name Stephen J. Fowler

Address: 3351 Freeman Rd, Walnut Creek

Name Kimberly Fowler

Address: 3351 Freeman Rd, Walnut Creek

Name Elizabeth Ann Lee

Address: 3303 Freeman Rd. Walnut Creek

Name RICHARD D. LEE

Address: 3303 FREEMAN RD. WALNUT CREEK

Name JON A. CHRISTENSEN

Address: 3311 FREEMAN RD. WALNUT CREEK

Name

Address: 3307 Freeman Rd. Walnut Creek

Name

Address: 3300 FREEMAN RD W.C 94595

Name Matt Broback

Address: 3304 Freeman Rd WC. 94595

Name Tracy Broback

Address: 3304 Freeman Rd. Walnut Creek 94595

Name JAMES NEIGHBOR

Address: 3314 Freeman Rd., Walnut Creek 94595

Name Mary Beal-Neighbor Mary Beal-Neighbor

Address: 3314 Freeman Rd Walnut Creek Ca 94595

Name Gail R. Ford Gail R. Ford

Address: 3322 Freeman Rd., Walnut Creek 94595

Name Robert Ford Robert Ford

Address: 3322 Freeman Rd., Walnut Creek 94595

Name Donna Crawford Donna Crawford

Address: 3330 Freeman Rd. Walnut Creek CA. 94595

Name Tim Crawford.

Address: 3330 Freeman Rd WC CA 94595

Name ADAM HENDERSON

Address: 3338 FREEMAN RD W.C. CA 9495

Name Kim Henderson

Address: 3338 Freeman Rd. W.C. Ca 94595

Name Rahul Ramnow

Address: 3343 FREEMAN RD WC

Name John T. Cornell

Address: 3346 FREEMAN RD

Name Virginia M. Cockree

Address: 3346 Freeman Rd W.C. Ca 94595

Name W. Scott Komoto

Address: 3367 Freeman Rd 94595

Name Robert Shuford

Address: 3370 Freeman Rd WC 94595

Name Janice C. Nation JANICE C. NATION

Address: 3306 Freeman Rd W.C. 94595

Name Jim Nation JIM NATION

Address: 3306 Freeman Rd. WC 94596

Name gene s Bozorth gene s Bozorth

Address: 3380 Freeman Rd

Name Donald Bozorth

Address: 3380 Freeman Rd WC

Name Bill Boselli Bill Boselli

Address: 3399 Freeman Rd

Name Lisa Greif

Address: 3386 Freeman Rd WC 94595

Name William Greif

Address: 3386 Freeman Rd WC 94595

Name Wendi Boselli Wendi Boselli

Address: 3399 Freeman Road

Name Michael Perry

Address: 3383 Freeman Rd Walnut Creek CA 94595

Name Karen Perry

Address: 3383 Freeman Rd. Walnut Creek CA 94595

Name Marney Ackerman

Address: 3375 Freeman Rd WC 94595

Name David Ackerman

Address: 3375 Freeman Rd WC 94595

Name John & Ann Theodoropoulos

Address: 12 Freeman Ct Walnut Creek CA 94595

Name Suzanne Yagi Smetana

Address: 48 Freeman Ct Walnut CK CA 94595

Name ALLYCE TRAVERSO

Address: 3354 FREEMAN RD.

Name JOHN TRAVERSO

Address: 3354 FREEMAN RD. WC 94595

Name Rebecca Christensen Rebecca Austin

Address: 3311 Freeman Rd. W.C. 94595

Name Sarah Johnson Sarah Johnson

Address: 3319 Freeman Rd. Walnut Creek, CA 94595

Name Mike Johnson M Johnson

Address: 3319 Freeman Rd. Walnut Creek CA 94595

Name _____

Address: _____

Name _____

Address: _____

2.48 Homeowners Association of Freeman Road

HOA-1 EBMUD staff is not recommending selection of the Tice Pumping Plant Alternative site. However, approval of WTTIP projects and project sites is at the discretion of the EBMUD Board of Directors. EBMUD acknowledges the concerns expressed by this comment.

HOA-2 This comment summarizes the comments made later in the letter. Please see **Responses HOA-3** through **HOA-18**, which acknowledge these concerns.

HOA-3 Consistent with requirements of the California Environmental Quality Act (CEQA), the District issued a Notice of Availability on June 23, 2006 indicating that the WTTIP DEIR had been published. This District generally tries to notify landowners impacted by District projects. When the District discovered that individual notices were not received, these were later sent out. Comments on the project were accepted until September 18, 2006. Seven public meetings on the project were held at various locations. In addition, District staff met with residents on Freeman Road at their request on September 12, 2006.

HOA-4 The DEIR provides information on the Tice Pumping Plant Alternative site on pp. 6-40 through 6-42 and pp. 6-64 through 6-65. The level of detail provided is consistent with CEQA, and presents a side-by-side comparison of impacts at the preferred and alternative sites. However, as noted in **Response HOA-1**, above, District staff is recommending the Board of Directors approve the preferred site.

HOA-5 Refer to **Responses HOA-1** and **HOA-4**.

HOA-6 Refer to **Response HOA-3**, above. EBMUD regrets that individual notices were not provided at the same time that the EIR was released but it has always been the policy of the District to work closely with communities in which water treatment and transmission projects may be located in order to incorporate community input into the project design and implementation process. The DEIR has to analyze and compare the proposed plant site and alternatives with sufficient detail to allow an informed comparison.

HOA-7 Refer to **Responses HOA-3** and **HOA-4**, above.

HOA-8 Please refer to **Response HOA-1,** above. Because EBMUD staff is not recommending the Tice Pumping Plant Alternative site, no further design work is being developed at this time. Nonetheless, the DEIR has analyzed both the proposed site and alternatives with sufficient detail to allow an informed comparison.

HOA-9 Pumping plants often are located by necessity in residential areas because their purpose is to allow for water distribution to these areas. For examples of EBMUD

pumping plants designed to be consistent with residential neighborhoods refer to **Response CN-3,** Figure 9, in Section 2.27 of this document.

HOA-10 See **Response HOA-1**, above. Orion Environmental Associates conducted environmental database reviews to assess the potential presence of soil or groundwater contamination at WTTIP project sites (refer to DEIR pp. 3.11-10 through 3.11-17). The database search included areas within one-quarter mile of proposed sites; consequently, the Tice Pumping Plant Alternative site was included. Text on DEIR pp 3.11-17 describes potential contamination sources in the vicinity of the Olympic Boulevard/Boulevard Way intersection. The database search did not identify any sources of contamination on the alternative site, although four leaking underground storage tanks were located along the pipeline route, which is common to both the preferred and alternative sites. Although regulatory agencies have closed all four sites, there is still the possibility that contaminated soils and/or groundwater could be encountered, but could be mitigated through implementation of Measure 3.11-1 (DEIR pp. 3.11-27). Regarding dust control measures, refer to DEIR p. 3.9-24.

HOA-11 EBMUD understands that a former methamphetamine laboratory was illegally operated at the alternative site, and that the laboratory and associated structures have since been demolished and removed. While the environmental database review conducted for the Tice Pumping plant did not identify the former drug lab referred to in this comment as an environmental case, in the event that EBMUD pursues the development of the alternative site, an environmental screening assessment will be performed on the on-site soils and groundwater. However, EBMUD staff is not recommending selection of the Tice Pumping Plant Alternative site.

HOA-12 As noted above, District staff is not recommending the alternative site for construction of the new Tice Pumping plant. However, as noted in **Response DGB-3**, noise from the pumping plant would not be allowed to exceed the 45-dBA nighttime limit at the closest residential receptors.

HOA-13 Refer to Section 2.1.5, Master Response on Social and Economic Costs.

HOA-14 Please see **Responses AH-2** and **HOA-4**. EBMUD will commit to specific mitigation measures for impacts to protected trees.

HOA-15 Please see **Responses HOA-4** and **HOA-11**.

HOA-16 The commenters suggest that the District has failed to comply with California environmental laws and regulations enforced by the California Department of Fish and Game (CDFG), and has disregarded tree preservation policies.

EBMUD complied with all applicable California environmental laws during the DEIR drafting process and will continue to do so throughout the implementation

phases of the proposed projects. The District will consult with CDFG as needed and seek all necessary permits (see DEIR pp. 2-91 for projects requiring permits from CDFG). Regarding tree preservation policies and regulations, as a local agency and utility district serving a broad regional area, EBMUD is not subject to building and land use zoning ordinances. However, it is the practice of the District to work with host jurisdictions and neighboring communities during project planning and conform to local tree ordinances to the extent possible. See DEIR pp. 3.6-20 through 3.6-22 for more information regarding the tree ordinances of communities affected by the WTTIP.

HOA-17 See **Response AH-3** regarding the DEIR's analysis of potential traffic and circulation impacts (and associated mitigation measures), and the use of Olympic Boulevard, associated with construction of the Tice Pumping Plant (both the proposed site and alternative site).

HOA-18 The comments refer to Alternative Site 1 which is discussed in Chapter 6, Alternatives Analysis (DEIR p. 6-65). This site was considered and rejected because it would permanently eliminate parking for adjacent businesses.

Comment Letter JB

From: Jack Behseresht [mailto:ixbehse@pacbell.net]
Sent: Saturday, August 19, 2006 4:59 PM
To: Water Treatment Transmission Improvements Program
Subject: Rudgear Tank

I am writing to provide an input regarding the potential access route to the planned tank. One of the identified routes is through Sugarloaf Dr. and Sugarloaf Lane. These are private streets and maintained by the homeowners. It is my understanding per the meeting of August 19th, 2006 that this access would require the permission of the homeownrs. Given the required heavey dirt hauling by large truks over extended period of time, it is clear that this option is not approporiate for our streets and the small neighborhood. Therefore permission will not be granted. JB-1

Jack Behseresht
Sugarloaf HOA
1350 Sugarloaf Dr.
Alamo Ca, 94507
925-256-9055

2.49 Jack Behseresht

Please note that the New Leland Pressure Zone Reservoir is examined at program level of detail in the WTTIP EIR. EBMUD is committed to engaging in a project-level EIR at an appropriate date in the future. Refer to Section 2.1.6, Master Response on the New Leland Pressure Zone Reservoir Alternatives, for more information.

JB-1 The comment indicates that Sugarloaf Drive and Sugarloaf Road are private roads unfit for use as access routes for construction of the New Leland Pressure Zone Reservoir in accordance with Option B (DEIR p. 2-86) due to construction traffic impacts and that permission to use these roads will not be granted.

The New Leland Pressure Zone Reservoir is discussed at a programmatic level of analysis in the DEIR (see Table S-2 on page S-5). The reservoir construction and the associated construction access routes will be analyzed in-depth in a subsequent project-level EIR. Other reservoir sites will be considered as well. EBMUD will consider these comments regarding the impacts of construction and the private nature of the roads indicating that Option B may not be a feasible access route to the preferred reservoir site during the project-level EIR process. Mitigation measures similar to Measures 3.8-1 and 3.8-7 (DEIR p. 3.8-24) would likely be required for the New Leland Pressure Zone Reservoir.

Comment Letter JC

From: Jim & Francoise Cervantes [mailto:jrcervantes@earthlink.net]
Sent: Friday, July 28, 2006 11:25 AM
To: Water Treatment Transmission Improvements Program
Cc: Jim & Francoise Cervantes
Subject: EBMUD's Water Treatment Plant Project

Judy,

I believe we traded messages on this project some months ago. I am a board member of the Sleepy Hollow Homeowners's Association. I've reviewed portions of the EIR with a specific focus on the proposed Happy Valley Pumping Station and the pipeline work along Lombardy Lane and Miner Road. I have a few questions for you:

1) How large will the HV pump station be in terms of its footprint, height, etc. ? It would be helpful to equate it to the dimensions of a home (i.e., 2,000 square feet and 40x50). JC-1

2) We've heard that it will be surrounded by a barbed wire fence, etc. Can you elaborate? JC-2

3) We also understand that the site would be used as a staging area during the construction process. What does this entail? Given that the area around the proposed Lombardy Lane is a residential area and that Lombardy Lane is rather narrow, this poses concerns. JC-3

4) Would the two acre parcel be used in its entirety, or would EBMUD propose to acquire a portion of the site. Related to this, how much acreage does EBMUD require for the site? JC-4

5) Can you comment on the sound that would be produced from the pumping plant (i.e., volume, during what periods of the day would it run, etc.) JC-5

6) Does EBMUD have schematic of what the pump station would look like? JC-6

7) Is there a viable alternative site? There is another, smaller vacant parcel on Miner Road across from Camino Sobrante. Would this work for EBMUD's purposes? JC-7

8) The EIR comments that "there is currently inadequate pumping capacity to supply the Las Aromas pressure zone during maximum day demand conditions; an additional 3.2 mgd is required to meet maximum day demand conditions in 2030." In lay terms, what does this mean? For example, what area does the Las Aromas pressure zone include? What is the shortfall during maximum day JC-8

conditions? I'm assuming that the HV pump station will provide the 3.2 mgd pumping capacity...what portion of this capacity would be for current needs vs. future demand? JC-8

9) With regard to the Lombardy Lane/Miner Road pipeline project: how long is this project expected to take? I noted the schematics in the EIR...I take it that one traffic lane will likely be closed when the work is done. Will the work be done in segments? JC-9

10) Will the pipeline project increase fire flow in the immediate area? JC-10

Thank you very much for your consideration of these questions. I look forward to meeting you in person at the August 2 hearing. Given the level of questions regarding this project, I'm sure that EBMUD will have a comprehensive presentation of the purpose, rationale and logistics of the project.

Yours,

Jim Cervantes
jrcervantes@earthlink.net

2.50 Jim Cervantes

JC-1 The layout of the proposed Happy Valley Pumping Plant is depicted on Map D-HVPP-1 (following Chapter 2 in the DEIR). The pumping plant will house two 200 hp pumps. As stated on DEIR p.5.3-31, the pumping plant building will be approximately 30 feet by 50 feet and 1500 square feet. The height will be up to 15 feet (top of roof line). Architectural details will be developed to match the surrounding neighborhood. Thus, the structure will appear to be a single-story, 1,500 square foot home.

JC-2 Pursuant to Measure 3.3-2 (DEIR p. 3.3-36, last bullet), the design of the gate to be installed at the proposed Happy Valley Pumping Plant will include aesthetic architectural treatment that will blend in with the surrounding neighborhood.

JC-3 As described on DEIR p. 2-74, the DEIR Proposed Happy Valley Pumping Plant site would serve as the construction staging area. This likely would involve storage of pipe and other construction materials and equipment (see Figure 2-9, DEIR p. 2-38, for a list of equipment used in pipeline construction) during and after construction hours. However, EBMUD is proposing to construct at the Happy Valley Pumping Plant Alternative site, not at the Lombardy Lane site.

JC-4 Please see **Response JC-3**.

JC-5 The Happy Valley Pumping Plant could operate at any time of the day or night, and the impact assessment assumes worst-case conditions (operation during the more noise-sensitive nighttime hours). See **Responses DS-4** and **DS-5** for discussion of operational noise impacts at the nearest residences.

JC-6 DEIR Figures 3.3-HVPP-4 and 3.3-HVPP-5 (following Section 3.3 of the DEIR) present visual simulations of the pumping plant building at the DEIR Proposed Happy Valley Pumping Plant site. Section 3.4 of this Response of Comments document presents simulations at the alternative site. Architectural details will be finalized during later stages of project design and will incorporate input from neighborhood representatives, pursuant to Measure 3.3-2c (DEIR p. 3.3-36).

JC-7 The Happy Valley Pumping Plant Alternative site is located on Miner Road at Camino Sobrante and is evaluated in Chapter 6 (DEIR p. 6-33). District staff are recommending that the pumping plant be constructed at the alternative site (the owner of that site is willing to sell the property to EBMUD).

JC-8 "Maximum day demand" refers to water demand occurring during peak use periods: typically the hottest days of the year during long periods without precipitation. Maximum day demand may only occur during a small portion of the year but it drives the capacity needed to serve EBMUD customers. As stated in Table 4-2 (DEIR p. 4-7), the Las Aromas Pressure Zone serves elevations between 650 and 850 feet above sea level. It is

located in parts of Lafayette and Orinda north of Highway 24 and east of Camino Pablo. Figure 2-3 (DEIR p. 2-12) provides a map of pressure zones in the Lamorinda/Walnut Creek area. The Las Aromas Pressure Zone is depicted on Figure 2 of this Response to Comments document. The commenter is correct in assuming that the Happy Valley Pumping Plant would provide the needed 3.2 mgd additional pumping capacity (see Table 2-11, DEIR p. 2-70). The additional capacity would serve both current and future demands. The 2005 maximum day demand was projected to be 4.08 mgd in the Las Aromas Pressure Zone Planning Program study; it is projected to increase to 4.30 mgd by 2030.

Refer also to Section 2.1.4, Master Response on the Need for and Alternatives to the Happy Valley Pumping Plant and Pipeline, for an expanded discussion of the need for this facility.

JC-9 Construction of the Happy Valley Pumping Plant and Pipeline project is scheduled to begin in May 2011 and last 1 to 2 years; pipeline construction is expected to last about 14.5 weeks. Section 3.8 of the DEIR, Traffic and Circulation, describes the projected traffic, disruption of traffic flows and street operations (including road closures and pipeline construction), and other potential impacts due to construction activities. As stated on DEIR p. 3.8-18, there are certain roadways that are not wide enough to maintain alternate one-way traffic flow around the pipeline construction site, road closure would be necessary. For example, segments of Nordstrom Lane, Glen Road, Miner Road, Lombardy Lane, and Boulevard Way would need to be closed to all through-traffic (except emergency vehicles) during work hours, with detour routing available in some, but not all, cases. As described on DEIR p. 3.8-21, for Lombardy Lane between Miner Road and Van Ripper Lane, detour routing is available via Upper Happy Valley Road, Happy Valley Road, Sundown Terrace, and Dalewood Drive. In addition, for Miner Road between Oak Arbor Road and Lombardy Lane, detour routing is available via St. Stephens Drive, Via Las Cruces, Honey Hill Road, and Miner Road.

JC-10 The need for the Happy Valley Pumping Plant and Pipeline project is discussed on DEIR p. 2-74. Refer also to Section 2.1.4, Master Response on the Need for and Alternatives to the Happy Valley Pumping Plant and Pipeline, for an expanded discussion of the need for this facility.

Comment Letter JF

From: Joyce Leavitt [mailto:Joyce_Leavitt@fd.org]
Sent: Monday, September 11, 2006 2:40 PM
To: Water Treatment Transmission Improvements Program
Subject: proposed expansion of Orinda Filter plant

September 11, 2006

Dear Judy or to whom it may concern:

I have two kids at Wagner Ranch Elementary School and our family lives off of Camino Pablo, about a quarter mile away and very close to the EBMUD filter plant in Orinda. My husband and I strongly oppose any expansion of this plant. I understand that it will cause us to lose the Orinda Sports fields which are used by the town and local soccer and baseball teams. An expansion of the plant will also cause us to lose the nice view of the fields and surrounding area and make me very uncomfortable regarding how close it will be to my kids' elementary school. Please do not allow this to happen. It would cause us to think about moving and leaving the community. If you have any questions or concerns, feel free to call me on my cell phone (925) 360-0467 or at home (925) 258-0224. Thank you for taking the time to read this. JF-1 JF-2 JF-3 JF-4

Joyce Leavitt Fine

2.51 Joyce Leavitt Fine

JF-1 The commenter's opposition to proposed improvements at the Orinda WTP and concern for the Orinda Sports Field is acknowledged. There is an existing Memorandum of Understanding (MOU) between EBMUD and the City of Orinda regarding the use of the Sports Field ("Recreational and Watershed Land Use Policies and the Objectives in the City of Orinda"). Pursuant to the MOU, prior to implementation of any WTTIP elements contemplated for the ballfields area, the City would move the Sports Field operations to a new location within the Montanera development.

JF-2 DEIR Figures 3.3-OWTP-6 and 3.3-OWTP-7 provide visual simulations of the Backwash Water Recycle System (at the southwest corner of Manzanita Drive and Camino Pablo) and other proposed facilities at the Orinda WTP. As discussed in Section 3.3 of the DEIR, Visual Quality, the new upgraded facilities proposed at the Orinda WTP would be similar to existing facilities in terms of their physical and aesthetic characteristics and would not result in substantial visual changes to the site's appearance. Regarding facilities under consideration for the Sports Field area, refer to **Responses VC-4** and **VC-5**.

JF-3 Map C-OWTP-1 depicts the location of the Orinda WTP relative to the Wagner Ranch Elementary School. The WTTIP includes project-level improvements (evaluated in detail) and program-level improvements (evaluated more generally). Under Alternative 1, as shown on Map D-OWTP-1, the facilities that would be nearest the Wagner Ranch School are program-level, and include a clearwell, chlorine contact basin, and ultraviolet disinfection building. The District will determine the need for these program-level elements based on regulatory requirements and further consideration of water management strategies. At that time, EBMUD would conduct the site evaluation, design, and additional environmental review needed to fully assess potential impacts to school children (DEIR p.S-19).

Under Alternative 2, as shown on Map D-OWTP-2, there is also a project-level entry portal of the Orinda-Lafayette Aqueduct that would be near the Wagner Ranch School. The DEIR considers the presence of the Wagner Ranch Elementary School in the impact evaluations of the Orinda-Lafayette Aqueduct (see, for example, pp. 3.8-14, 3.9-9, 3.10-39, 3.11-20).

For information regarding program-level/project-level distinctions, please see Section 2.1.1, Master Response on Program- and Project-Level Distinctions.

JF-4 Comment noted. Additional information on improvements in the sports field area, near the Wagner Ranch School, would be presented in an environmental document and circulated to the public prior to any approval action and project implementation.

Comment Letter JM

RECEIVED
AUG 02 2006
WATER SERVICE PLANNING

EBMUD

Water Treatment & Transmission Improvements Program
Draft Environmental Impact Report

Name: James Murphey

Address: 13 Kittiwake Rd

Email: graymur@pacbell.net

COMMENTS:

JM-1

Re: Orinda Pumping Plant Addition.
Request lowering base of proposed back wash building to lower the apparent height of the buildings seen from Manzanita

Submit this form as you leave this meeting, mail or hand deliver the form to EBMUD at Mail Stop # 701, 375 Eleventh Street, Oakland, CA, or email comments to Judy Zavadil, Senior Project Manager, at wttip@ebmud.com.

NOTE: Comments on the Draft EIR must be received by EBMUD by August 25, 2006, at 4:30 pm. Comments should be in writing and include your name and address.

2.52 James Murphey

JM-1 A site plan of the proposed backwash water recycle system is shown on Map D-OWTP-2 and a cross-section (Section B) is shown on Map D-OWTP-3. The facility cannot be lowered substantially as the top of the open flocculation and sedimentation basins are already near the existing ground level. The height of the proposed new Orinda WTP backwash facilities will be finalized during design and will be consistent with the visual simulations and specified measures which mitigate the visual impacts to a less-than-significant level. They will not be any higher than necessary consistent with structural, process sizing, and hydraulic requirements. See DEIR Figures 3.3-OWTP-8 and 3.3-OWTP-9 for visual simulations of the backwash system from Manzanita Drive.

Comment Letter JV

RECEIVED
AUG 15 2006
WATER SERVICE PLANNING

EBMUD

Water Treatment & Transmission Improvements Program
Draft Environmental Impact Report

Name: Joan von Kaschnitz

Address: 11 Charles Hill Rd. Orinda

~~Email~~: owner of property 2541 Olympic Blvd.

COMMENTS:

re: Tice Pumping Plant Alternative Site

We oppose the placement of the plant at the end of the cul-de-sac in this residential neighborhood. We firmly encourage you to go forward with the alternative plan to eliminate the necessity of massive excavation and the removal of trees. The residential area should remain in tact!

JV-1

Thank you!

Joan von Kaschnitz

Submit this form as you leave this meeting, mail or hand deliver the form to EBMUD at Mail Stop # 701, 375 Eleventh Street, Oakland, CA, or email comments to Judy Zavadil, Senior Project Manager, at wttip@ebmud.com.

NOTE: Comments on the Draft EIR must be received by EBMUD by August 25, 2006, at 4:30 pm. Comments should be in writing and include your name and address.

2.53 Joan von Kaschnitz

JV-1 Refer to **Responses BB-1** and **BB-2**.

Comment Letter JW

From: John Walkinshaw [mailto:jwalkinshaw@yahoo.com]
Sent: Friday, September 15, 2006 11:43 AM
To: Water Treatment Transmission Improvements Program
Cc: Harlow, Nora
Subject: Comments on Draft EIR as they relate to the proposed Leland Reservoir near Rudgear Road and Drive and I-680

Dear Judith Zavadil and Nora Harlow,

I believe I am still within the extended deadline given to residents of Rudgear Drive to submit comments on the Proposed New Leland Reservoir.

A little background:

My name is John Walkinshaw. My wife, Janine and I have lived at 173 Rudgear Drive since October of 2003. I had a 26 year Civil Enginnering career with the Federal Highway Administration (FHWA), first as a pavement engineer, then Geotechnical followed by 7 years as conultant. I am now retired.

Prior to moving to Rudgear Drive, we lived for 29 years in Rudgear Estates at 1960 Woodbury Court. One side of our lot bordered the access road to EBMUD's Hawthorn Reservoir and we endured the demolition and reconstruction activities of that reservoir. I am therefore very familiar with the construction equipment and process for this kind of project. Rudgear Estates has wide streets designed to newer standards and we still had damage done to our property due to the large turning radius required by the construction equipment. Fortunately, because of the wide streets, the hauling trucks could park while waiting to access the site without seriously impeding local traffic.

JW-1

My comments:

As an engineer I understand the need for a new reservoir and the criteria for selecting the proposed site. I am not opposed to the project itself IF it can be integrated into the environment in which is proposed and become "transparent" within the "open space" it is proposed.

EIR page 3.3.49 at the bottom states. The project could potentially affect public views from the surrounding area. These impacts could be reduced to "less than significant level" with implementation... Shortly following this,

JW-2

On page 3.3.50 ..."however, visual impacts at this site could remain significant and unavoidable."

There seems to be a conflict between the often used (overused in my opinion) "less than significant level" with the more blunt reality of the other statement.

Since I-680 is "Scenic Highway" and in order to qualify has to meet certain criteria such as " Major Intrusions" that dominate the landscape must not exceed a third of the length,

JW-3

would the water tower as proposed be classified as a "major intrusion"? If so, does this project need approval of the original requesting agency and/or Caltrans from an Environmental standpoint (not just the access and use of the area)?

JW-3

Since the current EIR admits that it "could REMAIN SIGNIFICANT and UNAVOIDABLE" (emphasis added), it appears that EBMUD Engineers are not using all of today's technologies to integrate their reservoir at this site. Obviously, making a reservoir more transparent involves more investment, but in view of its proximity to Open Space, I believe this should more properly be addressed in the EIR (after input from EBMUD Engineers).

JW-4

Access Road Discussion:

Let me just reinforce what I know my other neighbors have said.
Using Rudgear Drive as an access road for temporary and/or permanent access to the construction site is OK as a point of discussing alternates, BUT TOTALLY UNACCEPTABLE for this type of project. It is VERY NARROW IN PLACES, STEEP, CURVILINEAR AND WITH POOR EYE SIGHT DISTANCE.

I doubt that the existing pavement section would survive the construction equipment traffic very long.

This is a street with no other exit, so in case of closure, residents would be stranded.

Please discuss other alternatives as more desirable.

JW-5

Sincerely,

John L. Walkinshaw

2.54 John L. Walkinshaw

Please note that the New Leland Pressure Zone Reservoir is examined at program level of detail in the WTTIP EIR. EBMUD is committed to engaging in a project-level EIR at an appropriate date in the future. Refer to Section 2.1.6, Master Response on the New Leland Pressure Zone Reservoir Alternatives, for more information.

JW-1 The comment regarding construction activities is noted. See **Response WC-35** regarding consideration of access route alternatives for the New Leland Pressure Zone Reservoir.

JW-2 The commenter is requesting that the reservoir tank be integrated into the surrounding environment upon completion, especially in light of its location in open space. Mitigation measures to restore the reservoir site would require choosing colors for the tank that blend with the surrounding environment and planting landscaping to help the tank blend with its surroundings similar to those prescribed in Section 3.3 of the DEIR, Visual Quality. These measures would help reduce the impacts of concern to the commenter. However, as stated on DEIR p. 3.3-50, impacts to visual quality at the identified New Leland Pressure Zone Reservoir site could remain significant and unavoidable. The commenter quotes a statement from DEIR p. 3.3-49, which is from the discussion of the Leland Reservoir Replacement, a different project in a different location from the identified site for the New Leland Pressure Zone Reservoir. (Refer to DEIR pp. 2-85 and 2-86 for a description of both projects.) As noted above, the New Leland Pressure Zone Reservoir is evaluated at a program level in this document and will undergo a future project-level EIR.

JW-3 Environmental impact reports are submitted to the State Clearinghouse and distributed to the various departments of the State of California for their comment. This would be appropriate venue for the California Department of Transportation to review and comment on the potential environmental impacts of the project. Caltrans is aware of the project and did not comment on the WTTIP DEIR.

JW-4 Refer to **Response JW-2**. Additional options for project design and detailed mitigation will be considered in the future project-level EIR.

JW-5 Comment noted. See **Response WC-35** regarding consideration of access route alternatives for the New Leland Pressure Zone Reservoir.

Comment Letter KH

From: KHoulahan@aol.com [mailto:KHoulahan@aol.com]
Sent: Wednesday, September 06, 2006 10:45 PM
To: Water Treatment Transmission Improvements Program
Subject: (no subject)

stop the ebmud expansion in Orinda!!! KH-1

2.55 K. Houlahan

KH-1 The commenter's opposition to proposed improvements at the Orinda WTP is acknowledged.

Comment Letter KH1

WATER DISTRIBUTION
SEP 18 2006
PLANNING DIVISION

EBMUD

Water Treatment & Transmission Improvements Program
Draft Environmental Impact Report

Name: Kim Henderson

Address: 3338 Freeman Rd

Email:

COMMENTS:

KH1-1 I strongly object to the idea of a water pumping plant being proposed at the alternate site on Main Olympic Blvd.

KH1-2 Traffic and hazards on Olympic are already close to unacceptable. Any addition of traffic or hazard is an opposite.

KH1-3 The environmental damage due to the unwanted elimination of Grand Heritage Oak trees is unacceptable.

KH1-4 The notice period is unacceptable.

KH1-5 All of which adds up to an unacceptable location and unacceptable economic loss to the neighborhood

Submit this form as you leave this meeting, mail or hand deliver the form to EBMUD at Mail Stop # 701, 375 Eleventh Street, Oakland, CA, 94607, or email comments to Judy Zavadil, Senior Project Manager, at wttip@ebmud.com.

NOTE: Comments on the Draft EIR must be received by EBMUD by September 18, 2006, at 4:30 pm. Comments should be in writing and include your name and address.

2.56 Kim Henderson

KH1-1 EBMUD staff is not recommending selection of the Tice Pumping Plant alternative site. However, approval of WTTIP projects and project locations is at the discretion of the EBMUD Board of Directors.

KH1-2 See **Response AH-3** regarding the DEIR's analysis of potential traffic and circulation impacts (and associated mitigation measures), and the use of Olympic Boulevard, associated with construction of the Tice Pumping Plant (both the proposed site and alternative site).

KH1-3 See **Response AH-2**.

KH1-4 Consistent with the California Environmental Quality Act (CEQA), the District issued a Notice of Availability on June 23, 2006 indicating that the WTTIP DEIR had been published. Comments on the project were accepted starting on that date and continuing until September 18, 2006. Seven public meetings on the project were held at various locations. In addition, District staff met with residents on Freeman Road at their request on September 12, 2006.

KH1-5 See **Response KH1-1**. Refer to Section 2.1.5, Master Response on Social and Economic Costs.

From: Kelly Lemon [mailto:kelly.lemon@sbcglobal.net]
Sent: Monday, September 18, 2006 2:53 PM
To: Water Treatment Transmission Improvements Program
Cc: Kirkpatrick, William; McGowan, Timothy; nharlo@ebmud.com
Subject: Revised- Comments on Draft EIR SCH # 2005092019 of June 2006 EBMUD Water Treatment and Transmission Improvements Program (WTTIP)

Hi Judy,

Below is the correct letter.

Thanks.
Kelly

To Whom It May Concern:

Thursday September 14 was garbage day on Rudgear Dr. as I followed a PG&E utility truck up the road it maneuvered around each garbage can; I wondered how the dump trucks would make it around them even with a flagman standing by? The road is narrow and windy; in March a garbage truck hit a small Honda coming around a blind corner. My husband was hit in my little Acura back in 1997 by an EBMUD Jeep truck. How has EBMUD factored in emergency vehicles coming up during this time, not only fire trucks but ambulances (there are quite a few elderly residents). KL-1

I believe that EBMUD has prematurely presented a project that has not been well thought out. It might look like a well thought out plan by the various maps, photograph, tables in the EIR but it seems irresponsible to me to think Rudgear Rd could be used to access the New Leland Reservoir project. KL-2

At the meeting I attended in Oakland EBMUD office I spoke to the woman in charge of writing the EIR, whose name escapes me but I believe to be Jill Hamilton, EIR Consultant with ESA Water, I asked if she had ever personally driven up Rudgear Drive? I said that I did not think anyone could properly evaluate a project if they had not physically visited the site. She said she would make a point of visiting the site and would drive up Rudgear Drive. At the next public meeting at Heather Farms meeting in July I again asked her if she had driven up Rudgear? She said, "No, but I sent other people there." How is it possible for a person to intelligently write an evaluation in such great detail without ever visiting the locally accessible site? Why would someone not take the opportunity to visit a locally accessible site when questions regarding the suitability of that site had been brought to their attention by a concerned resident? Why would someone tell a resident that they would visit the site and KL-3

then not do so? These questions are troubling and seem to demonstrate the actions of an organization that is merely going through the motions as opposed to honestly evaluating the concerns of residents and suitability of a project site. KL-3

I would also like to know why at the neighborhood meeting in August at 121 Rudgear Drive a representative from the city of Walnut Creek initially attended but did not stay for the meeting? Is this because it was clear this project had not been properly planned out? The residents raised so many questions that could not be answered by the EBMUD representatives; we were finally asked to put our questions in writing to be addressed in the EIR. KL-4

If EBMUD truly wants the public and residents of the surrounding area of the New Leland Reservoir Project to have a say, ask questions and have their concerns answered there would be a separate EIR just for this project so it would not be so confusing. KL-5

I understand we all need water, and I appreciate what you are trying to accomplish but I do not think access to the Leland Reservoir that is being proposed, up Rudgear would be the best route. KL-6 I also believe that there are alternatives that have not been looked into, a fact that was apparent at the August meeting, for example there is property that is owned by EBMUD in the Sugarloaf open space. It may not be the optimum site but I do not believe it was really given full consideration due to there being an easement issue? More careful consideration should be given before saying it is not a possible site? KL-7

Sincerely,

Kelly Lemon

2.57 Kelly Lemon

Please note that the New Leland Pressure Zone Reservoir is examined at program level of detail in the WTTIP EIR. EBMUD is committed to engaging in a project-level EIR at an appropriate date in the future. Refer to Section 2.1.6, Master Response on the New Leland Pressure Zone Reservoir Alternatives, for more information.

KL-1 See **Response WC-35** regarding consideration of access route alternatives for the New Leland Pressure Zone Reservoir. EBMUD evaluates access disruption to streets for emergency vehicles as part of the CEQA review of all projects. This evaluation is included on DEIR pp.3.8-20 and 3.8-21.

KL-2 See **Response WC-35**.

KL-3 The commenter is concerned about whether sufficient field visits have been made to analyze the project site. The site has been visited by the environmental consultants, EBMUD staff, the Director of Engineering, and a Board Member. As noted above, the District has evaluated the New Leland Pressure Zone Reservoir at a general (programmatic) level of detail in the WTTIP EIR. A detailed analysis of the project will be undertaken in a project-level EIR in the future and the City and residents will be provided with an additional opportunity for comment at that time.

KL-4 In response to the comment that a representative of the City of Walnut Creek left the informational meeting held in Walnut Creek (July 20, 2006) early, it cannot be presumed that the behavior of the City staff was intended as commentary on the adequacy of the DEIR. Commenters were asked to put comments or questions in writing so that an official response could be made in the Final EIR and become part of the public record on the WTTIP.

KL-5 The New Leland Pressure Zone Reservoir is evaluated at a program level in this document and will undergo further project-level CEQA review in an EIR at a future time.

KL-6 Comment noted. See **Response WC-35**.

KL-7 Refer to **Response HME-1**.

WATER DISTRIBUTION
SEP 18 2006
PLANNING DIVISION

EBMUD

Water Treatment & Transmission Improvements Program
Draft Environmental Impact Report

Name: Kaisa Lyon

Address: 3300 Freeman Rd. Walnut Creek 94595

Email: Kaiselyon@comcast.net

COMMENTS: Opposition to Ice Valley Pumping Plant alternate site.

KL1-1

① Disreption of a quiet, treelined, family oriented neighborhood.

KL1-2

② Unavoidable death of numerous Heritage Oak trees that are older than all of us!

KL1-3

③ Effect on property values on Freeman Rd.

KL1-4

~~④ Unacceptable~~ ④ Unacceptable way EBMUD contacted impacted homeowners (it should say LACK of communication).

KL1-5

I believe that the original site chosen, near the gas station, comes with NONE of these issues. Houses are well set back from original plant site, there aren't trees the age or size of ours on property + it is already a noisier site.

Submit this form as you leave this meeting, mail or hand deliver the form to EBMUD at Mail Stop # 701, 375 Eleventh Street, Oakland, CA, 94607, or email comments to Judy Zavadil, Senior Project Manager, at wttip@ebmud.com.

NOTE: Comments on the Draft EIR must be received by EBMUD by September 18, 2006, at 4:30 pm. Comments should be in writing and include your name and address.

2.58 Kaisa Lyon

KL1-1 EBMUD staff is not recommending selection of the Tice Pumping Plant alternative site. However, approval of WTTIP projects and project locations is at the discretion of the Board of Directors.

KL1-2 Please see **Response AH-2**.

KL1-3 Refer to Section 2.1, Master Response on Social and Economic Costs.

Also see **Response AH-2**.

KL1-4 Consistent with requirements of the California Environmental Quality Act (CEQA), the District issued a Notice of Availability on June 23, 2006 indicating that the WTTIP DEIR had been published. Seven public meetings were held on the project at various locations. EBMUD regrets that the Freeman Road residents were inadvertently left off the mailing list for individual notices of the public meetings. After this oversight was discovered, EBMUD notified the several residences on Freeman Road and held a special neighborhood meeting on September 12 to discuss the proposed and alternative pumping plant sites.

KL1-5 See **Response BB-3**.

From: kaisalyon@comcast.net [mailto:kaisalyon@comcast.net]
Sent: Wednesday, September 13, 2006 1:14 PM
To: Ad Lyon; marose@bos.cccounty.us; gaile@bos.cccounty.us; Coleman, John; Zavadil, Judith
Subject: Water Plant Proposal (Tice Valley)

Good morning:

I am writing you today to express my concerns over the Alternate Site ("Site #2") for the Tice Valley water pumping station, located on Olympic Blvd. My family has lived on Freeman Road (directly on the backside of the proposed pump area) for the past couple of years. We moved here because of the peace and tranquility of the neighborhood - an area where children ride their bikes on the cul de sac and bounce around from one backyard to another. It is an ideal place to live and raise children. However, having a noisy water pumping station will disrupt all of this - not to mention my concerns over the impact to our environment. KL2-1

I am concerned about what this plant would do to the lovely creek we have running through many of our backyards. KL2-2 And, I am even more concerned over the health and welfare of the amazing Oak trees that are older than all of us. There would be no way to build this plant without disrupting their root systems and kill these incredible trees - which are such an important part of Saranap history... KL2-3

From my understanding the site initially proposed "Site #1" (behind the Saranap gas station) would come without ANY of these issues. KL2-4 I believe that an incredible amount of tax payers money has already gone into developing this site for the Tice Valley pumping plant. It would seem a waste to throw away that money and look at developing the alternate site - especially when it comes with the higher price tag of fundamentally changing the neighborhood by killing our Oak trees and potentially harming our creek as well as ruining the quality of life for all of the residents on Freeman Road. KL2-5 Many of these residents have poured an incredible amount of money into maintaining and improving their properties because it is such a peaceful neighborhood to live in. I know this would impact our property values as well. KL2-6

I hope that you have considered all of these issues and come to the reasonable decision to NOT waste anymore time and money on developing site #2. KL2-7

Thank you for your time. I look forward to hearing from you soon.

Kaisa Lyon

Resident of Freeman Road

2.59 Kaisa Lyon

KL2-1 The commenter's opposition to the alternative location for the Tice Pumping Plant is noted. EBMUD staff is not recommending selection of the Tice Pumping Plant alternative site. However, approval of WTTIP projects and project locations is at the discretion of the EBMUD Board of Directors. The pumping plant would not be allowed to exceed a 45-dBA nighttime noise limit at the closest residential receptors. See **Response DGB-3** for more discussion.

KL2-2 The commenter's concern about potential impacts to the referenced creek is acknowledged. Development of the site would not require construction in areas under the jurisdiction of the California Department of Fish and Game (see DEIR p. 6-40).

KL2-3 See **Response AH-2**.

KL2-4 See **Response KL1-5**.

KL2-5 EBMUD staff is not recommending selection of the Tice Pumping Plant alternative site. However, approval of WTTIP projects and project locations is at the discretion of the EBMUD Board of Directors.

KL2-6 Refer to Section 2.1.5, Master Response on Social and Economic Costs, for discussion of property values.

KL2-7 See **Response KL2-5**, above.

Comment Letter KLLJS

EBMUD
PO Box 24055
Oakland CA 94623

Sept.7, 2007

To Whom It May Concern:

Along with my wife and other adult family members, I am very much against the proposed Filter Plant expansion. Our reasons are as follows:

-we doubt EBMUD's promises re neighborhood impact since EBMUD has not shielded the last expansion project with landscaping the way it said it would. KLLJS-1

-the Draft EIR that has been submitted is poorly thought out and inadequate (e.g., there is no clearly stated need or requirement in the Draft EIR re why the Filter Plant must be expanded) KLLJS-2

-locating this large industrial facility in a semi-rural residential community is unfair and impractical. KLLJS-3

–the removal of the sports fields will hurt Lamorinda children, depriving them of much needed recreational playing fields. My wife and I know first-hand the hassles our son's soccer teams experienced trying to find fields for 9 years. Children will also be impacted since EBMUD's expansion is contiguous to an elementary school. KLLJS-4 KLLJS-5

- the various multi story buildings and huge storage tanks proposed will be visible to those driving along Camino Pablo. This will degrade a roadway which is designated as a scenic corridor. KLLJS-6

-this blight will additionally influence property values in the immediate area. KLLJS-7

Since there are other EBMUD locations where a filter plant could be constructed or expanded that would not impact Orinda residents, it seems logical for EBMUD to withdraw its proposed expansion and pursue other options. KLLJS-8

Yours truly,

Karl, Leslie, Lindsay and John Schonborn
44 Acacia Drive
Orinda, CA 94563
925 254-7274

2.60 Schonborn Family

Many of the comments in this letter are similar to comments in the letter submitted by Ann Sharf. Consequently, many of the responses below cross-reference to responses in Ms. Sharf's letter.

KLLJS-1 Pursuant to Measure 3.2-2a (DEIR pp. 3.3-35 through 3.3-36), the District has committed to adopting, as a condition of project approval, a detailed set of requirements for landscaping project sites. Commitments specific to the Orinda WTP are presented therein and provide opportunities for input for neighborhood representatives regarding landscape plans.

KLLJS-2 Please see **Response AS-2** as well as Section 2.1.2, Master Response on Benefits to Orinda.

KLLJS-3 Please see **Response AS-3**.

KLLJS-4 Please see **Responses AS-4**, **BM-2** and **BM-11**.

KLLJS-5 Please see **Response AS-5**.

KLLJS-6 Please see **Response AS-7**.

KLLJS-7 Refer to Section 2.1.5, Master Response on Social and Economic Costs.

KLLJS-8 Please see **Response AS-9**.

Comment Letter KR

WATER DISTRIBUTION
SEP 13 2006
PLANNING DIVISION

EBMUD

Water Treatment & Transmission Improvements Program
Draft Environmental Impact Report

Name: Kathy Rogers

Address: 1496 Boulevard Way Walnut Creek 94595

Email: Kathrogers@astound.net

COMMENTS:

The other site (Newell Ave) is better suited for the heritage oaks alone! KR-1

The noise is a consideration, KR-2

as is the visual impact of a large (30'x70') and tall (20') building. This is a residential area. More residents are affected at this site. KR-3 KR-4

Submit this form as you leave this meeting, mail or hand deliver the form to EBMUD at Mail Stop # 701, 375 Eleventh Street, Oakland, CA, 94607, or email comments to Judy Zavadil, Senior Project Manager, at wttip@ebmud.com.

NOTE: Comments on the Draft EIR must be received by EBMUD by September 18, 2006, at 4:30 pm. Comments should be in writing and include your name and address.

2.61 Kathy Rogers

KR-1 EBMUD staff is not recommending selection of the Tice Pumping Plant alternative site. However, approval of WTTIP projects is at the discretion of the EBMUD Board of Directors. Regarding heritage oak trees at the alternative site, please refer to DEIR p. 6-36 and to **Response AH-2**.

KR-2 Regarding noise at the alternative site for the Tice Pumping Plant, please refer to DEIR p. 6-41 and to **Response DBG-3**.

KR-3 Regarding visual impacts at the alternative site for the Tice Pumping Plant, please refer to DEIR p. 6-36.

KR-4 As part of the CEQA analysis on this complex project, EBMUD must balance a variety of competing considerations. The number of neighboring residences was among the considerations for this project component. This is one of the reasons EBMUD staff is recommending the proposed site south side of Olympic Boulevard for approval by the EBMUD Board of Directors.

Dear EBMUD,

18

PLANNING DIVISION

My mom and Dad said they would build a playgroand in our back yard. If you build a road there we can't have a playground.

KS-1

From,

Kyle Simonse

2.62 Kyle Simonse

Please note that the New Leland Pressure Zone Reservoir is examined at program level of detail in the WTTIP EIR. EBMUD is committed to engaging in a project-level EIR at an appropriate date in the future. Refer to Section 2.1.6, Master Response on the New Leland Pressure Zone Reservoir Alternatives, for more information.

KS-1 Comment noted. EBMUD appreciates the concerns regarding impacts to biological resources, views, and recreational impacts, including impacts to playgrounds, and will consider these concerns in undertaking a future project-level EIR. Please see **Responses TS-11** and **TS-12**.

Comment Letter LG

31 Layman Court
Walnut Creek, CA 94596
September 12, 2006

Judy Zavadil, Senior Project Manager
Water Distribution Planning Division
East Bay Municipal Utility District
375 Eleventh Street (Mail Slot #701)
Oakland, CA 94607-4240

Re: EBMUC Water Treatment and Transmission Improvement Program (WTTIP)
Draft Environmental Impact Report
SCH #2005092019

Dear Ms. Zavadil:

I am writing with comments related to the Leland Pressure Zone Reservoir Construction Project component of the EBMUD WTTIP.

I understand that before proceeding with this project component, EBMUD will conduct necessary site evaluation, design, environmental review and permitting activities. (Draft EIR S-19). However, I share the following comments now with the hope that they will influence EBMUD staff thinking about the proposed reservoir site and access to that site prior to your finalizing the EIR. LG-1

Proposed Reservoir Site

According to the draft EIR, seven potential reservoir sites have been considered to date. What was Site 3 is now being called the "preferred" site. Sites 5 and 7 were eliminated from consideration because of geologic considerations (one being located on a active fault and one having mapped landslides on the property). Sites 1, 2, and 6 were eliminated because they are located in designated open space that can only be sold following a vote in favor of this action by the citizens of Walnut Creek. Site 4 was eliminated due to "the extent of traffic impacts associated with construction of the inlet/outlet pipeline". (Draft EIR 6-66). However, there are significant access issues associated with Site 3, including both traffic concerns and the need to build roads both through Sugarloaf Open Space and private property. Only one of four options (Option D) for getting access to the proposed site does not involve using open space. LG-2

Since there are no reasons given for eliminating Sites 1,2 and 6 other than that thy are located in open space and therefore will require an affirmative vote of Walnut Creek residents to become a reservoir site, I ask why EBMUD does not also eliminateSite 3, which also requires use of open space for three of four potential access routes. I presume that Site 3 was not eliminated because 1) EBMUD staff believe a vote will not be necessary in order to use open space property as an access route during construction where a vote would be necessary to use a parcel as the actual reservoir site, and 2) there also is a fourth access option that does not require use of open space and, in fact, is proposed as the permanent route for maintenance access. Given its potential need for open space access, can you clarify why Option 3 was not eliminated as a possible reservoir site? Are there other reservoir site options that might be considered? For example, might it be possible to trade an EBMUD parcel for an open space site? LG-2 LG-3 LG-4 LG-5

Access to the Proposed Reservoir Site

If, after active exploration of additional possible site options, it is concluded that Site 3 is the only viable option, I urge you to eliminate any access option that includes use of Rudgear Drive. I wrote to Timothy McGowan on January 16, 2006 laying out my husband's and my concerns. We still strongly believe that the use of Rudgear Drive is problematic for several reasons. LG-6

1. As you may know, Rudgear Drive is a very narrow and unstable road. There are no shoulders, so cars passing going in opposite directions must stay to the right without falling off the side of the road. Nor are there any sidewalks. Large trucks with heavy equipment using the road will damage the roadway itself, cause hazards for cars attempting to go the opposite direction, and endanger individuals, including children, who are walking on the road. Pedestrians would have no place to go when confronted by a large vehicle taking up most of the road. Passenger vehicles pose a threat, too, but they are smaller and more nimble. LG-7

2. Rudgear Drive is the only road into and out of the residential area. Both Rudgear itself and Layman Court, which runs into Rudgear, are dead-ends. If we had large vehicles associated with construction using the road, they could block access not only for passenger cars, but also for other large vehicles, such as fire trucks or ambulances, which occasionally do need access. A few months ago, for example, there was a grass fire in the Sugarloaf Open Space. Large fire trucks had to go up Rudgear Drive and Layman Court to get access to the Open Space so as to fight the fire from several directions. Had they been blocked by large construction vehicles or equipment they would not have been able to reach the fire site in a timely way. We understand that the reservoir construction would go on at least two years and might go on longer. Creating such road hazards for such a period of time will endanger the residents of the area. LG-8

Comment Letter LG

3. In addition to life safety issues, there are also environmental quality issues arising from the dust, vehicle and equipment emissions and noise that will be a part of this project, all of which will affect residents along Rudgear Drive and Layman Court. LG-9

4. Using Rudgear Drive will also require developing a road through the Sugarloaf Open Space near the private properties that border it. Such action will affect the wildlife in the area such as deer and coyotes, and will make it impossible for some residents to gain access to the Open Space without having to cross a road. LG-10 We have older and visually-impaired residents in the affected area for whom such a road would pose a danger. LG-11

5. Option A (Draft EIR 2-86) recognizes that there is no way to gain access from Rudgear Drive to the Open Space and the reservoir site without taking portions of three private properties. This option is unacceptable to residents of our neighborhood. LG-12

I see that the Draft EIR indicates that permanent access to the proposed reservoir site, as distinct from construction access, "would be via Option D"; that is, "a new road would be constructed up the slope from Rudgear Road just north of the Park and Ride lot." (Draft EIR 2-86) If Site 3 is finally chosen as the reservoir site, I urge you to select access Option D, or some other option that does not include Rudgear Drive, both for construction and permanent maintenance access. LG-13

If I can provide additional information or answer questions, please do not hesitate to contact me at (925) 934-2209.

Sincerely,

Linda C. Guerra

Linda C. Guerra

cc: William R. Kirkpatrick, Engineering Manager
Timothy McGowan, Assistant Project Manager
Nora Harlow, Community Affairs Representative

2.63 Linda Guerra

Please note that the New Leland Pressure Zone Reservoir is examined at program level of detail in the WTTIP EIR. EBMUD is committed to engaging in a project-level EIR at an appropriate date in the future. Refer to Section 2.1.6, Master Response on the New Leland Pressure Zone Reservoir Alternatives, for more information.

LG-1 The District will consider these concerns as part of the future project-level EIR evaluating the New Leland Pressure Zone Reservoir that will be undertaken prior to the District approving that project.

LG-2 Sites 1, 2, and 6 require the permanent conveyance of open space property, which the City of Walnut Creek has stated is restricted by Government Code Section 38502. The District will consider the point that three of the four options for access to the site involve using the open space temporarily in developing the analysis of alternatives for consideration in the project-level EIR.

LG-3 Refer to **Response LG-2**.

LG-4 Refer to **Response LG-2**.

LG-5 See **Responses EE-5** (regarding the suggested parcel trade) and **WC-59** (regarding other alternatives to the New Leland Pressure Zone Reservoir). The District will revisit the site selection process in the project-level EIR.

LG-6 Rudgear Drive may not be the preferred access road to this site for many of the reasons stated in this comment letter. As the DEIR states, however, there are few options for accessing the site. Potential access road options will be analyzed in depth in the project-level EIR.

LG-7 Refer to **Responses LG-6** and **WC-35**. In addition, implementation of DEIR Measures 3.8-1 (p. 3.8-14) and 3.8-7 would address some of the traffic safety and roadway wear-and-tear issues raised in this comment.

LG-8 See **Response WC-35**. Measures identified in DEIR Measure 3.8-1 and described in Impact 3.8-5 could help reduce access issues for emergency vehicles.

LG-9 DEIR p. 3.10-54 and **Response WC-23** address concerns about noise associated with the New Leland Pressure Zone Reservoir. As specific details about the construction of this project are not yet available, a more in-depth and detailed analysis at this point would be speculative.

Analysis of project-level impacts to air quality associated with the New Leland Pressure Zone Reservoir will take place as part of the future project-level EIR. With implementation of mitigation measures similar to DEIR Measures 3.9-1a, 3.9-1b, and

3.9-1c, identified for the project-level elements, it is anticipated that impacts to air quality due to increased emissions during construction could be reduced to a less-than-significant level.

LG-10 Comment noted. Developing an access road through what is currently undeveloped open space would have minor impacts on wildlife that use the area, such as deer and coyote. However, construction impacts would be temporary and once construction is completed the road would be little traveled and continuing impacts would be negligible. Impacts to common wildlife (such as deer and coyote) are not considered significant in the DEIR (see DEIR p. 3.6-23 for discussion).

The New Leland Pressure Zone Reservoir is analyzed programmatically in the DEIR. At this point, this access road option is anticipated to be a temporary access road.

LG-11 See **Response LG-10**. Regarding residents with special needs, this issue will be analyzed once design details are available on the project.

LG-12 The commenter objects to construction access route Option A for the New Leland Pressure Zone Reservoir because it would require taking portions of three private properties (see DEIR p. 2-86).

The DEIR includes a programmatic analysis of potential sites for the New Leland Pressure Zone Reservoir (see Table S-2 on DEIR p. S-5). The reservoir and the associated construction access routes will be fully analyzed in a later project-level EIR. In addition, it is not the District's preferred practice to take property except through sales from willing owners, although the District, as a public utility, can invoke its eminent domain authority. All of these factors are considered in determining the most feasible and environmentally preferable of the components of a project.

LG-13 Comment noted. See **Response WC-35**.

Comment Letter LH

RECEIVED
AUG 09 2006
WATER SERVICE PLANNING

EBMUD

Water Treatment & Transmission Improvements Program
Draft Environmental Impact Report

Name: Larry Haydon (owner 1130 Glen Road, Lafayette)

Address: 4 Dianne Court, Lafayette, CA 94549

Email: larryhaydon@comcast.net

COMMENTS:

LH-1 1. I am very concerned about the fact that the EIR designates my front yard Trees as potential for serious or fatal damage. These trees are a valuable part of our home and energy efficiency control for the house. We expect EBMUD to work carefully with us on this issue and to replace and/or compensate for any damages.

LH-2 2. Please take into consideration that the Glen Road Valley has a long history of drainage and flooding issues. The drainage ditches along the road are critical to controlling water down the valley. If the ditches get plugged or restricted anywhere, several houses below that point will have flooded front yards and garages. Several years ago the street was regraveled and the contractor thought he was doing everyone a favor by spreading gravel into the ditches. That gravel is still washing down the valley causing everybody to clean out their ditches several times during the winter seasons.

Submit this form as you leave this meeting, mail or hand deliver the form to EBMUD at Mail Stop # 701, 375 Eleventh Street, Oakland, CA, or email comments to Judy Zavadil, Senior Project Manager, at wttip@ebmud.com.

NOTE: Comments on the Draft EIR must be received by EBMUD by August 25, 2006, at 4:30 pm. Comments should be in writing and include your name and address.

Thank you for the informative meetings, CD's etc. 8/5/06

2.64 Larry Hayden

LH-1 EBMUD will make reasonable efforts to reduce the potential damage to trees along the Glen Road corridor as described in Measures 3.6-1a and 3.6-1b. Any trees that do not survive pipeline construction will be replaced as described in Measure 3.6-1c.

LH-2 The types of impacts mentioned by the commenter are discussed in Section 3.5 of the DEIR under Impact 3.5-1 (DEIR p. 3.5-29). Measure 3.5-1 addresses these concerns.

As discussed on DEIR p. 3.5-5, the proposed Glen Pipeline Improvements are located outside of the mapped flood zones associated with Happy Valley Creek. However, localized flooding due to construction of the pipeline would be avoided by contractor compliance with Section 01500 of the EBMUD construction specifications, which requires, among other things, that the contractor "maintain the site and all stored items in a neat and orderly condition allowing maximum access, not impending drainage or traffic, and providing the required protection of materials." Other Sections (00340 Material Assessment Information, 01350 Project Safety Requirements, and 01351 Environmental Requirements) provide that silt, eroded materials, construction debris, concrete or washings thereof, petroleum or paint products or other substances, shall not be introduced, or placed where they may be washed by runoff, into any water course, stream, lake, reservoir, or storm drain system.

Comment Letter LL

From: lynn lopez [mailto:lynnlopezcis@msn.com]
Sent: Friday, August 25, 2006 3:02 PM
To: Water Treatment Transmission Improvements Program
Subject: attn: Judy Zavadi-- Tice Pumping Plant

I am a neighbor responding to the Tice Valley Pumping Station. I do not believe that it should be placed in the proposed site and feel that the alternative site would be better based on numerous reasons. The proposed site is in a residential neighborhood and access is through a small neighborhood road, thus increasing the traffic flow. The alternate site gains entry on a main road. The proposed site is a residential neighborhood, not mixed use, and zoning should be abided by. The proposed site is very visible and located at the base of an unstable hill. Removal of trees and foilage from this site for construction purposes may jeopardize the hillside and cause erosion and slides. Replanting of trees would takes years to screen. The cost of retaining walls is a major expense that would not be incurred at the alternate site. The project is next to the recently completed pedestrian path. Construction at this site would be an inconvenience and disruption for all who use the path. Using an alternative site would avoid the disruption and tearing up of Olympic Blvd which is a major traffic artery for downtown Walnut Creek, Lafayette, and freeway access. Construction on Olympic Blvd could be unsafe, as well as disruptive. In summary, the alternate site appears to be a better and safer site with less expense. If you have any questions, please contact me. I would also appreciate you keeping me updated on this project.

LL-1
LL-2
LL-3
LL-4
LL-5
LL-6
LL-7

Thank You,
Lynn Lopez
130 El Dorado Road, Walnut Creek, CA 94595

2.65 Lynn Lopez

LL-1 See **Response AH-3** regarding the DEIR's analysis of potential traffic and circulation impacts (and associated mitigation measures), and the use of Olympic Boulevard, associated with construction of the Tice Pumping Plant.

LL-2 The commenter is correct that the proposed project site is zoned Single-Family Residential. It is recognized in Impact 3.2-1 (DEIR p. 3.2-14) that the Tice Pumping Plant is proposed on a site located within a predominantly single-family residential and open space area. However, pursuant to California Government Code Section 53091, EBMUD is not subject to land use and zoning ordinances for projects involving facilities for the production, generation, storage or transmission of water. It is, however, the practice of EBMUD to work with host jurisdictions and neighboring communities during project planning to develop facilities consistent with the surrounding land use.

LL-3 To address the commenter's concerns, EBMUD will modify the layout and design of the proposed pumping plant. The structural footprint will be moved to the northwest to reduce hillside excavation and the number of trees removed. In addition, a portion of the pumping plant (5-10 feet) will be constructed below ground to reduce visual impacts.

As required by Measures 3.3-2a through 3.3-2c (DEIR pp. 3.3-35 and 3.3-36), the pumping plant would be integrated with its surroundings through landscaping and architectural design features. In implementing Measure 3.3-2, EBMUD will coordinate with neighborhood representatives during development of landscape plans and architectural design. For examples of pumping plants designed to blend in with residential neighborhoods, refer to **Response CN-3** and Figure 9, in Section 2.27 of this Response to Comments document.

DEIR Impact 3.4-1 addresses slope stability and identifies evidence of slope instability at the proposed Tice Pumping Plant site (DEIR p. 3.4-25). Implementation of Measure 3.4-1, requiring site-specific geotechnical evaluations prior to project construction, would reduce the impacts at the site to a less-than-significant level.

LL-4 The geologic hazard of slope stability is discussed on DEIR p. 3.4-13, and makes specific reference to the Tice Valley Pumping Plant on DEIR p. 3.4-25. As the comment noted and as mentioned in the discussion of the DEIR, this project is at the base of a slope that is currently showing signs of failure. The DEIR provides mitigation for this potential impact (i.e., the potential for site development, including tree removal, to adversely affect, or be affected by, unstable slopes). The mitigation measure would require a site-specific slope stability evaluation conducted by professional geotechnical and civil engineers registered with the State of California. The evaluation would include recommendations to correct slope conditions such as building design (e.g. engineered retaining walls), slope terracing, and erosion control measures (e.g. revegation plan) that would reduce the potential impact. Incorporation of these engineering techniques into the

final designs of the facility would result in a factor of safety of at least 1.3 under pseudo-static (earthquake) loads and 1.5 under static loads. Therefore, the geotechnical recommendations would insure that the project is designed so that the hazards of slope instability are less than significant.

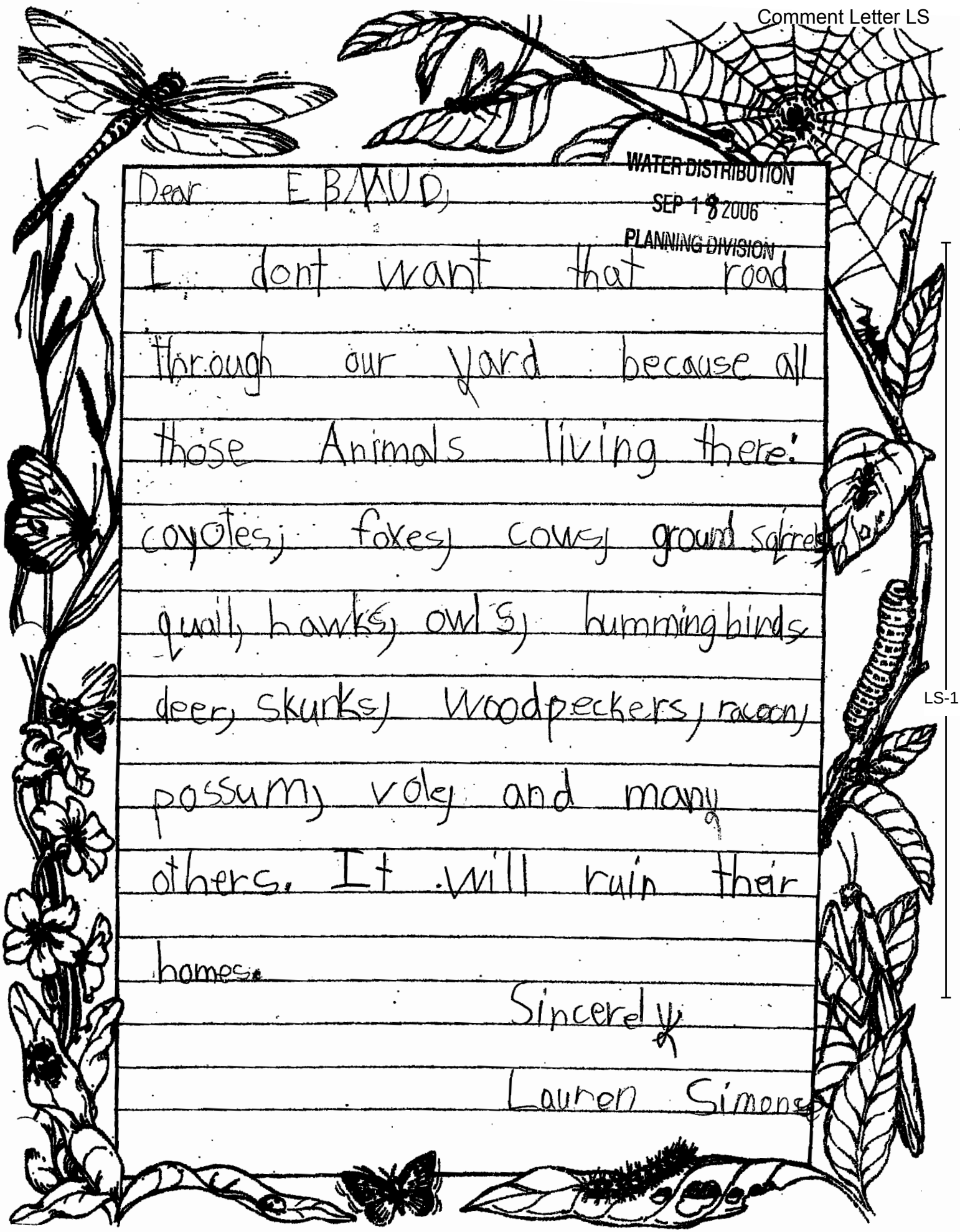
LL-5 EBMUD staff is recommending the proposed site south side of Olympic Boulevard for approval by the EBMUD Board of Directors. The proposed site is recommended because it has fewer nearby residences that would be directly affected by the construction and operation of the plant than the alternative site north of Olympic Boulevard.

LL-6 Refer to **Response LL-1** with regard to traffic impacts to Olympic Boulevard.

The disruption of use of the recreational trail adjacent to the proposed Tice Pumping Plant site is addressed under Impact 3.2-3 (DEIR p. 3.2-18). The impact is considered less than significant due to the availability of other recreational facilities nearby.

LL-7 See **Response AH-3** regarding the DEIR's analysis of potential traffic and circulation impacts and associated mitigation measures), and the use of Olympic Boulevard, associated with construction of the Tice Pumping Plant.

Comment Letter LS



WATER DISTRIBUTION
SEP 18 2006
PLANNING DIVISION

Dear EBMUD,

I dont want that road through our yard because all those Animals living there: coyotes, foxes, cows, ground squirrels, quail, hawks, owls, hummingbirds, deer, skunks, Woodpeckers, racoons, possums, voles and many others. It will ruin their homes.

Sincerely,

Lauren Simons

LS-1

2.66 Lauren Simonse

Please note that the New Leland Pressure Zone Reservoir is examined at program level of detail in the WTTIP EIR. EBMUD is committed to engaging in a project-level EIR at an appropriate date in the future. Refer to Section 2.1.6, Master Response on the New Leland Pressure Zone Reservoir Alternatives, for more information.

LS-1 One of the options for accessing the proposed New Leland Pressure Zone Reservoir site identified as preferred in the DEIR (Option A on Map C-NLELRES-1 in the DEIR) would cross through your yard during construction. EBMUD will be preparing a separate project-level EIR specifically addressing the New Leland Pressure Zone Reservoir that will evaluate a full range of alternatives to the New Leland Pressure Zone Reservoir, including the four options for accessing that site.

Developing an access road next to or through the open space area (Options A, B, C or D) could indeed affect wildlife that use the area, such as deer and coyote. There is always the possibility of loss of wildlife on any construction project in an area like the Sugarloaf Open Space. Some wildlife species receive specific protection under state and federal laws, including threatened and endangered species. Your comment mentions five species of birds, all of which are protected under the Migratory Bird Treaty Act and/or other resource protection statutes. In the DEIR, these species are collectively referred to as protected or special-status species. The DEIR identifies measures to avoid impacts to special-status species; these measures were developed by trained wildlife biologists, including staff at the agencies charged with protecting the species and their habitat (the U.S. Fish and Wildlife Service, the U.S. Army Corps of Engineers, and the California Department of Fish and Game). EBMUD has committed to implementing these measures for projects that the Board of Directors will consider approving in December, 2006; the New Leland Pressure Zone Reservoir will not be among the projects considered for approval at that time. EBMUD cannot approve the project until after it has prepared the project-level EIR referred to above.

Although effects to common wildlife like deer and coyote are not considered significant impacts in the DEIR (see DEIR p. 3.6-23), some measures to protect the public and to protect special-status wildlife species (such as security fences and silt fences) also are effective at keeping wildlife out of construction sites, which keeps them out of harm's way.

From: Mjboortz@aol.com [mailto:Mjboortz@aol.com]
Sent: Monday, September 18, 2006 10:47 AM
To: Water Treatment Transmission Improvements Program
Cc: Mjboortz@aol.com
Subject: comments on WTTIP DEIR (SCH#2005092019)

attn:

Ms. Judy Zavadil, Sr. Proj Mgr
EBMUD
375 Eleventh Street
Oakland, CA 94607-4240

As a resident of Lafayette who lives near the Lafayette Reservoir, I am providing my comments on the Draft Environmental Impact Report (DEIR) for EBMUD's Water Treatment and Transmission Improvements Program (WTTIP).

First, the DEIR appears to do a good job describing the need for this project. I also appreciate the number of alternatives EBMUD investigated and had analyzed in the DEIR document. Of the project alternatives presented, I prefer Alternative 1 (supply from Orinda and Lafayette water treatment plants) as it appears to present the least negative impacts compared to other alternatives. In addition, I believe it makes sense, from an operations flexibility and redundancy stand-point, to maintain two water treatment plants (WTPs) in the Lamorinda area versus relying on one WTP (as would occur in Alternative 2). MB-1

I do have some questions and concerns on several statements, impacts or mitigations noted in the DEIR. These questions and concerns follow, with DEIR page numbers referenced.

On page 3.3-35 (describing mitigations for loss of trees) it is noted that every project except the Highland Reservoir Project will coordinate with/involve neighborhood representatives during development of final landscape plans. Why is the Highland Reservoir Project excluded from this requirement? I suggest it should not be excluded. This Project is located within the City of Lafayette, there are residences in the vicinity and many Lafayette (and other surrounding area) residents regularly use the Reservoir area. The mitigation should include the requirement that neighborhood or City of Lafayette representatives should be involved in development of final landscape plans for the Highland Reservoir Project. MB-2

On page 2-41,42 (plus elsewhere in the DEIR) it is described how Lafayette Water Treatment Plant (WTP) backwash water will be routed to the Lafayette Reservoir via a proposed, new Reclaimed Water Line. On page 6-17, it is noted that the Lafayette WTP filter backwash water contains pathogens. On page 2-21, it is noted that Orinda WTP backwash water discharge to San Pablo Creek has repeatedly violated its NPDES permit condition on bioassay testing (acute aquatic toxicity) due to pathogens. There is mention of routing Lafayette WTP backwash water on an interim basis to the Lafayette Reservoir; and it appears that this would be done before construction of the proposed backwash water recycle process (which includes UV disinfection)? If true, I could not find in the DEIR an analysis of the impacts of this discharge (which I presume would include pathogens) on water quality and wildlife that live in or use the Lafayette Reservoir. Regardless, even after treatment by the proposed, new backwash water recycle process, there should be a requirement for aquatic toxicity testing, and a compliance standard regarding aquatic toxicity, of the discharge to the Lafayette Reservoir (i.e., water conveyed in the new Reclaimed Water Line to the Reservoir). MB-3

Why does Table 3.5-5 show no data (or estimated values, based on similar existing processes at other locations) for Lafayette WTP backwash settling basin supernatant? MB-4

On page 3.6-33, Mitigation Measure 3.6-1b requires that removed protected native trees will be replaced 3:1. This mitigation should be clarified to state that the removed trees will be replaced with native trees, and trees of the same species/type of the removed trees if possible or practicable. MB-5

On page 3.6-34, the DEIR notes that the new pipeline routing will be done to avoid removal of protected trees. I support this consideration; it should be retained/included as a mitigation measure for the project. MB-6

On page 6.9, the DEIR notes that EBMUD intends to review membrane technology for the Lafayette WTP if Alternative 1 is selected. I support this consideration since, as described in the DEIR, this technology could be an environmentally superior alternative. The requirement to study alternative available technologies for the Lafayette WTP improvements in Alternative 1 should be included as a mitigation measure (if appropriate to have such a mitigation measure at this point in the review process). MB-7

Throughout the document, there is mention that EBUMD will make efforts to minimize the removal of protected or mature growth trees. I support this consideration; it should be retained/included as a mitigation measure for the project. MB-8

Thanks for providing the opportunity to submit comments, and for agreeing to extend the public comment period on the DEIR. If there are any questions regarding my comments, please contact me via email at mjboortz@aol.com MB-9

Sincerely,

Marielle J. Boortz
15 Timber Lane
Lafayette, CA 94549

2.67 Marielle Boortz

MB-1 The commenter's preference for Alternative 1 is acknowledged.

MB-2 The District will consult with the City of Lafayette when developing final landscaping plans, as stated in Measure 3.3-2a (DEIR p. 3.3-25).

MB-3 Interim modifications including disinfection, clarification, and dechlorination of the backwash water would be implemented as part of the installation of the Lafayette Reclaimed Water Pipeline to address issues with regard to pathogens. The NPDES permit for the Lafayette Water Treatment Plant requires toxicity testing and toxicity limitations for discharges to Lafayette Reservoir. Water quality impacts associated with discharges from the Lafayette Reclaimed Water Pipeline to Lafayette Reservoir are addressed in Impact 3.5-5 (DEIR pp. 3.5-38 through 3.5-41). As stated on DEIR p. 3.5-41, analyses required by the self-monitoring program for the General NPDES Permit for Discharges from Surface Water Treatment Facilities for Potable Supply would include toxicity testing, and the effluent must meet whole effluent toxicity limitations provided in the NPDES permit. If discharges cease to meet toxicity limitations, discharge to Lafayette Reservoir will cease until resolved.

Biological impacts associated with discharges from the Lafayette Reclaimed Water Pipeline are addressed on DEIR pp. 3.6-34, 3.6-38, 3.6-47, 3.6-54, and 3.6-62. The analysis concludes that because the discharge would comply with NPDES permit discharge and receiving water limitations, discussed in Impact 3.5-5, the discharge would not have adverse effects on aquatic resources and habitat or to Bald Eagles, special status bats, the Western Pond Turtle, or associated special status species.

MB-4 Table 3.5-5 includes representative analytical data from the existing backwash settling basin supernatant (clarified water discharged after settling to remove solids). Because the Lafayette Reclaimed Water Pipeline would discharge the same water, these data are considered representative of the quality of the proposed discharge. Although full effluent toxicity data are not available, the effluent would be expected to meet the effluent limitation for whole effluent toxicity, because it would be dechlorinated and would not contain other toxic substances as stated on DEIR p. 3.5-39.

MB-5 Comment noted. See **Response LAF-10** for clarification of mitigation regarding replacement trees.

MB-6 The DEIR stipulates avoidance of protected tree removal with respect to the major pipeline alignments. Measure 3.6-1e (DEIR p. 3.6-34), which requires realignment of the Highland Reservoir pipelines and Moraga Road Pipeline in order to avoid removing protected trees to the extent feasible, would be adopted as a condition of project approval.

MB-7 EBMUD currently intends to pilot test the membrane process on our source waters. If information emerges showing feasibility of membrane technology for this application, then it will be considered at the predesign stage of the project.

MB-8 During the Draft process a number of projects were modified and alternatives explored in order to minimize the removal of protected trees. Measure 3.6-1e (DEIR p. 3.6-34), which would be adopted as a condition of project approval, also stipulates further refinement of the major pipeline alignments to avoid removing protected trees.

MB-9 Comment noted. EBMUD appreciates this input.

EBMUD

Water Treatment & Transmission Improvements Program
Draft Environmental Impact Report

Name: Matt Broback

Address: 3304 Freeman Rd, WC CA 94595

Email: mbroback@ffh.com

COMMENTS:

We oppose the placement of a pumping station on North Olympic Blvd. Given how close the station will be to the houses on N. Olympic and the destructive effect it will have on the surrounding trees, the S. Olympic Blvd seems a better option. In addition, we were given inadequate notice to consider the impact of such a project.

MB1-1

MB1-2

MB1-3

Submit this form as you leave this meeting, mail or hand deliver the form to EBMUD at Mail Stop # 701, 375 Eleventh Street, Oakland, CA, 94607, or email comments to Judy Zavadil, Senior Project Manager, at wttip@ebmud.com.

NOTE: Comments on the Draft EIR must be received by EBMUD by September 18, 2006, at 4:30 pm. Comments should be in writing and include your name and address.

2.68 Matt Broback

MB1-1 EBMUD staff is not recommending selection of the Tice Pumping Plant alternative site. However, approval of WTTIP projects and project locations is at the discretion of the EBMUD Board of Directors.

MB1-2 See **Response AH-2**.

MB1-3 Consistent with requirements of the California Environmental Quality Act (CEQA), the District issued a Notice of Availability on June 23, 2006 indicating that the WTTIP DEIR had been published. The District generally tries to notify landowners impacted by District projects and when the District discovered that individual notices were not received, an effort was made to contact landowners. Comments on the project were accepted until September 18, 2006. Seven public meetings on the project were held at various locations. In addition, District staff met with residents on Freeman Road at their request on September 12, 2006.

Comment Letter MC

From: [mailto:margo@theconnollys.net]
Sent: Tuesday, July 25, 2006 2:57 PM
To: Water Treatment Transmission Improvements Program
Subject: Response to EBMUD Proposal

Dear EBMUD Representatives,

I read in the *Contra Costa Times* (July 12, 2006) that EBMUD is proposing tank changes that will likely involve the destruction of thirty old oak trees in Lafayette. MC-1

I attended a substantial portion of the EBMUD public information meeting in Lafayette that week. I stood up to voice my concern that many of us citizens did not find out about the threat to the oaks until that week. I requested that EBMUD extend their period for public comment on this series of proposed projects from the current August 25th cut-off until **at least a month** after the schools re-open, so that more citizens can learn about the projects and voice any concerns. ***It is unacceptable to railroad this plan through while so many citizens are out of town.*** MC-2

These aged oak trees cannot be replaced during our lifetimes. They are a treasure enjoyed by our Lafayette community, and we all have an obligation to protect them for future generations. MC-3

At the meeting, one of the EBMUD representatives explained that there were a number of other spots that were identified as possible locations for the tank. One of those that he said would probably have worked out was eliminated from the running because it belongs to Caltrans. *He did not suggest to the audience that any attempt at negotiation had been made.* One would hope that the state would be willing to work out a plan if the motivating factor were the preservation of thirty or more old oak trees. Are the trees protected in any way?

Please negotiate for that other site (or any other qualifying sites) before we destroy our own trees. MC-4

Please keep me posted about an extension for public opinion. Another public meeting should be scheduled for a date sometime **after** the first week of Lafayette schools, which is too hectic a week for young families. MC-5

Thank you for your help.

Sincerely,

Margo Connolly
Lafayette Citizen

2.69 Margo Connolly

MC-1 Table 3.6-4 (DEIR p. 3.6-27) indicates that approximately 30 to 35 oak trees with diameters equal to or exceeding 18 inches may be removed at the Highland Reservoir site. In response to this comment and others expressing concern about loss of and disturbance to trees at the Highland Reservoir site, EBMUD is proposing the Revised Highland Reservoir Site for adoption and has modified the text of Measure 3.6-1e accordingly (see **Response LAF-7** and Section 3.3 of this Response to Comments document for information).

MC-2 The comment period was extended to September 18, 2006, allowing for over 60 days during which comments could be submitted.

MC-3 Comment noted. See **Responses EBMUD_NR-4** and **MC-1**. EBMUD has refined the tank layout and will reduce the number of large oaks taken from approximately 17 to 8.

MC-4 The reasons for rejecting alternative sites for Highland Reservoir are discussed in Section 6.10 of the DEIR. Site 7 (see Appendix J) is a vacant parcel owned by Caltrans north of Highway 24 and east of Via Roble. Subsequent investigation revealed that Caltrans has changed the topography and the site is now below the 530-foot contour, making it infeasible for development of the reservoir.

MC-5 Please refer to **Response MC-2**.

Comment Letter MJ

From: Xpedxmikej@aol.com [mailto:Xpedxmikej@aol.com]
Sent: Thursday, September 14, 2006 10:14 AM
To: Water Treatment Transmission Improvements Program
Cc: Zavadil, Judith; gayle@bos.cccounty.us
Subject: WTTIP, MS # 701, The Tice Valley Pumping Station

To Whom it may concern,

Regarding the Tice Valley Pumping Station, I am strongly opposed to the selection of the alternative site (South side of Olympic Blvd) for the following reasons.

1. My first concern is that no EIR has been done on the alternative site. The alternative site contains a grove of 62 mature, mostly native trees including approximately 30 over 100 year old Heritage Oaks. Building on this site could potentially damage these beautiful trees. Trenching work has been done in the past on the street along this parcel of land and several Heritage Oaks were accidentally killed as a result. Of course before this work was undertaken, assurances were made that no trees would be harmed. Based on the size of these trees, it is a fair assumption to say the entire parcel has roots covering it. MJ-1

2. My second concern ties into the first concern. The majority of these LARGE trees on the alternative site hang over the backyards of 3 homes on Freeman Road. They tower over parts of homes and play areas in these yards. I am concerned that soil movement and accidental root damage could potentially harm these trees resulting parts or complete trees falling on homes or people. MJ-2

3. As mentioned before, the alternative site directly borders the backyards of 3 homes on Freeman Road. In the case of one home, the pump station would be located within 10 yards of the owners master bedroom. The current proposed preferred site located on the south side of Olympic Boulevard doe's not directly border any backyards. From a comparative noise analysis, it would seem that the current proposed preferred site would be a better choice. MJ-3

4. It is my understanding that the Department of Fish and Game requires a 50 foot setback from creeks. The alternative site doe's have a small seasonal creek located along the northern boundary of the parcel. Based on the size of this lot and the size of the proposed pump station, there could be a compliance issue. MJ-4

Mike Johnson

Resident
3319 Freeman Road
Walnut Creek CA 94595

2.70 Mike Johnson

MJ-1 EBMUD staff is not recommending selection of the Tice Pumping Plant alternative site. However, approval of WTTIP projects and project locations is at the discretion of the EBMUD Board of Directors. Regarding potential damage to trees, see **Response AH-2**.

MJ-2 See **Response AH-2**.

MJ-3 The area under consideration for the alternative pumping plant site is south of the trees that are located south of these homes.

MJ-4 The commenter's concern about potential impacts to the referenced creek is acknowledged. Development of the site would not require construction in areas under the jurisdiction of the California Department of Fish and Game (see DEIR p. 6-40). Please also refer to Section 2.1.3, Master Response on EBMUD Obligations to Comply with Local Ordinances, Obtain Local Agency Approvals and Permits, and Pay Local Agency Fees for additional response pertinent to this comment.

From: Mary Beall [mailto:mary.beall@purealty.com]
Sent: Monday, September 18, 2006 11:00 AM
To: Water Treatment Transmission Improvements Program
Subject: for Judy Zavadil, Senior Project manager

Water Treatment & Transmission Improvements Program Draft Environmental Impact Report

Name: Mary and Jim Neighbor

Address: 3314 Freeman Road, Walnut Creek

Email: mary@marybeall.com

Comments: We are very concerned about the proposal to locate the pumping station on the land on the south side of Olympic that is owned by the Mission. There are many heritage oaks on the land and if an environmental impact study is not done these trees may be negatively impacted. The destruction of any or all of these trees would be a major loss to the entire area. The other issues that we are concerned about are what type of noise will be generated and what traffic issues will arise from the construction and on going running of the plant. MJN-1 MJN-2

It is our understanding that an environmental impact study has been done on the original site on the other side of Olympic but not on the alternate site. It is critical that the trees are protected. MJN-3

Thank You

2.71 Mary and Jim Neighbor

MJN-1 See **Response AH-2**.

MJN-2 The commenter's opposition to this alternative location for the Tice Pumping Plant is noted. District staff is not recommending that this alternative become the preferred project, although approval of the project is a discretionary decision by the Board. See **Response DGB-3** for discussion of noise impacts associated with the alternative pumping plant site.

MJN-3 The Tice Pumping Plant alternative site was evaluated in Chapter 6 of the DEIR. Refer to **Response RC1-1**.

From: Mickey Karlinsky [mailto:mlkarlin@comcast.net]
Sent: Monday, September 18, 2006 2:13 PM
To: Water Treatment Transmission Improvements Program
Cc: manager@moraga.ca.us; jmercurio@moraga.ca.us; mlkarlin@comcast.net; lbkarlin@hotmail.com; puravidadave@hotmail.com
Subject: EBMUD WTTIP EIR Comments

September 18, 2006

To: Judy Zavadil
Senior Project Manager
EBMUD

From: Dr. Malcolm Karlinsky
224 Draeger Drive
Moraga, CA 94556
925-3768253
mlkarlin@comcast.net

Re: Draft EIR
EBMUD WTTIP Program

Dear Ms. Zavadil,

All comments to be addressed refer to Moraga Reservoir replacement project:

3.3-32 Environmental Setting:

As noted, trees are to be removed and substantial demolition and construction will occur.
Since the existing landscaping is minimal and not particularly attractive, there exists the opportunity
for substantial visual improvement to the site. Since the new replacement tank will be much smaller than
the existing tank, with perimeter paving, mitigation measures for the environment should include extensive
landscaping, with consideration for public access to a new park-like setting on the secured portions of the site.

MK-1

3.8-12 Traffic

Per Table 3.8-5, the projected traffic increase to Draeger Drive is 178 vehicles per day, with 24 trucks per hour
on a lightly traveled residential street. The resulting impact is excessive, and requires additional mitigation.

MK-2

3.10-28 Noise

The EIR notes that some equipment....jack and bore construction....would operate 24 hours per day.
As noted, the reservoir sits in the midst of a residential area, with adjacent homes some of which are

MK-3

only 50 ft away. Construction noise "would...exceed the speech interference criterior by.....11 db for impact equipment (jackhammers)". These levels would violate the applicable Moraga Municipal Code and mitigating measures described will need to be monitored for compliance with Code. MK-3

Hazardous materials

Please refer to EBMUD document..."Completion of Environmental Assessment and Cleanup Activities at Moraga Reservoir" dated August 11, 2004. As you know, independent analysis demonstrated asbestos present in soil samples at the Moraga Reservoir site, and recently an asbestos encapulation project has been completed. Since the roofing material at the site (transite) contains a high concentration of asbestos and will undergo demolition, there is obvious concern over particulates released into the air. The EIR does not extensively mandate ongoing independent air sampling, monitoring, etc. to mitigate any potential for contamination. This needs to be addressed in some detail. MK-4

There are additional items in the EIR which require further discussion and analysis, and I look forward to continuing dialogue in this regard. Thank you. MK-5

Dr. Karlinsky

2.72 Mickey Karlinsky

MK-1 Please refer to DEIR Table 3.3-4, DEIR Figure 3.3-MORRES-1, 2 and the project discussion on DEIR p. 3.3-14. Construction of the new valve pit for Moraga Reservoir, at the southwest corner of the site, would require only minor disturbance and no tree removal. Installing the replacement tank and constructing paved perimeter access would require the removal of 4 to 6 trees on the eastern side of the site. Trees that are required to be cut would be replaced as described in Measure 3.6-1b (DEIR p.3.6-33). Given the presence of an existing reservoir facility on the site and the mature trees and shrubs that would remain around its perimeter, the proposed modifications would represent a relatively minor, incremental visual change that would not substantially alter the site's appearance. Implementation of Measure 3.3-1 (DEIR p. 3.3-23) would require construction contractors to establish staging areas in areas generally away from public views.

The District disagrees that the existing landscaping is minimal. However, EMBUD will meet with impacted landowners and neighbor representatives to discuss options during the design process. For security purposes, public access will not be allowed beyond the area which is already encompassed by the existing site fencing.

MK-2 As described on DEIR p. 3.8-10, the analysis of potential impacts associated with each facility focuses on the maximum number of daily and hourly vehicle trips during its construction. The number of construction-related trips would vary among the different facilities, and among the tasks involved. Impacts during lower trip-generating tasks would be less than those described in the DEIR. In the case of the Moraga Reservoir facility, the estimated maximum trip generation on Draeger Drive would occur for approximately 8 weeks. The DEIR analysis acknowledges (p. 3.8-13) that traffic volume increases would be more noticeable on lightly-traveled roadways such as Draeger Drive than on higher-volume Moraga Way and Moraga Road. The traffic volumes would, however, remain at levels less than the carrying capacity of these roads.

MK-3 Jack-and-bore construction and operation of jackhammers would <u>not</u> occur 24 hours per day. As stated on DEIR p. 3.10-28, these activities would be limited to construction hours specified in the Moraga Noise Ordinance (8 a.m. to 5 p.m.) as required in Measure 3.10-1b (DEIR p. 3.10-31) except during critical water service outages or other emergencies and special situations. As detailed in a change to Measure 3.10-1b (see Section 3.2 of this Response to Comments document), "EBMUD will coordinate with local agencies regarding noise controls for any construction work that needs to occur after 6:00 p.m. and before 7:00 a.m." However, should equipment operate beyond the hours specified in the Moraga Noise Ordinance (24 hours per day), Measure 3.10-1d (DEIR p. 3.10-32, second bullet) requires that such equipment meet local ordinance noise limits as listed in Table 3.10-1 (DEIR p. 3.10-4).

MK-4 As discussed on DEIR p. 3.11-29 and noted by the commenter, the existing Moraga reservoir would be demolished to accommodate construction of a new reservoir in the same footprint. The current reservoir roof contains asbestos; therefore, as specified in Measure 3.11-2, EBMUD would ensure that prior to demolition a hazardous building materials survey for the structure is completed by a registered environmental assessor or a registered engineer. Any hazardous materials identified, including asbestos, would be abated in accordance with applicable regulations prior to demolition.

During abatement, asbestos abatement contractors must follow the regulations in Title 8 of the California Code of Regulations. In accordance with Section 1529 of these regulations, asbestos work must be conducted within regulated areas and within these areas employers must conduct periodic air monitoring to determine if airborne asbestos concentrations exceed permissible levels. In addition, abatement contractors must implement engineering controls and work practices to control dispersion of asbestos-containing materials during abatement. When roofing materials are removed, the contractor must:

- Remove the roofing material in an intact state to the extent feasible
- Use wet methods to remove roofing materials that are not intact, or that would be rendered non-intact during removal
- Continuously mist cutting machines
- Collect all dust from cutting operations either by a HEPA dust collector, HEPA vacuuming, or gently sweeping and wiping, with immediate bagging of the dust or placement in a covered container
- Pass the roofing material to the ground via a covered, dust tight chute, crane, or hoist, unless carried by hand
- Transfer unwrapped material to a closed receptacle in such a manner to preclude dispersion of dust

Implementation of these legally-required measures would substantially reduce the potential for contamination during asbestos abatement activities at the Moraga Reservoir.

MK-5 EBMUD appreciates your comments and concerns regarding the project and will continue to keep the community apprised of the project.

Comment Letter MKP

From: Skeb4@aol.com [mailto:Skeb4@aol.com]
Sent: Thursday, September 14, 2006 5:19 PM
To: Water Treatment Transmission Improvements Program
Cc: marose@bos.cccounty.us
Subject: Response to Draft EIR (Pump Plant on Olympic)

Attn: Judy Zanadil ,Senior Project Mgr.

Please accept our comments regarding the Water Treatment and Improvements Program Draft E.I.R. Alternative Site on the Northwest Side of Olympic Blvd.

The construction would cause irreparable damage to the existing oak trees along the back of the alternative site. MKP-1

The construction traffic along Olympic Blvd. could create an unsafe driving situation due to the high volume of cars using Olympic Blvd. MKP-2

The preferred site on the south side of Olympic Blvd. would allow the contractor to access the work area from the frontage road. This would minimize construction traffic on Olympic Blvd. MKP-3

The current P.G.&E. power lines are located on the south side of Olympic. This would eliminate the need for coordinating trenching across Olympic Blvd. MKP-4

In conclusion we feel the preferred, site on the south side of Olympic Blvd., is the most beneficial for all parties. MKP-5

Mike and Karen Perry
3383 Freeman Road
Walnut Creek, CA 94595
SKEB4@aol.com

2.73 Mike and Karen Perry

MKP-1 EBMUD staff is recommending the proposed site on the south side of Olympic Boulevard for EBMUD Board approval. Regarding potential damage to trees, see **Response AH-2**.

MKP-2 See **Response AH-3** regarding the DEIR's analysis of potential traffic and circulation impacts (and associated mitigation measures), and the use of Olympic Boulevard, associated with construction of the Tice Pumping Plant.

MKP-3 Refer to **Response MKP-2**.

MKP-4 On DEIR p. 3.12-15, information is provided on existing public utilities in the vicinity of the Tice Pipeline alignment. Table 3.12-5 indicates public services and utilities impacts by project facility and Table 3.12-6 identifies applicable mitigation measures for individual WTTIP projects.

MKP-5 Refer to **Response MKP-1**.

Comment Letter MM

WATER DISTRIBUTION
SEP 1 1 2006
PLANNING DIVISION

MATTHEW P. MORAN
8 NORTHWOOD DRIVE
ORINDA, CA 94563

9/6/06

Ms. Zavadil –

I encourage you to locate the proposed Orinda Filter Plant Expansion to another location.

This proposed location will impact this area negatively in so many ways:

MM-1

- This is a designated scenic corridor

MM-2

- These play fields are a great place for Orinda kids to play.

MM-3

- locating this huge facility in a residential area exposes EBMUD to future liability with respect to health concerns

MM-4

Comment Letter MM

for nearby residents.

MM-4

I personally OPPOSE the proposed expansion and will pursue all legal remedies to insure that the citizens of Orinda are protected from this egregious and inappropriate proposed expansion.

Thank You,

Matt Moran

925-254-9317

2.74 Matthew Moran

MM-1 The DEIR considered several alternatives involving the Orinda WTP, including (at the request of the City of Orinda) several involving relocation of the Orinda WTP. These alternatives were eliminated because they do not meet the District's objectives. Refer to DEIR pp. 6-52 through 6-56.

MM-2 Views of the Orinda WTP from the designated scenic route of Camino Pablo would encompass portions of the backwash water recycle system. Due to the presence of dense roadside vegetation, the project would only be visible from a relatively short segment of designated scenic route. DEIR Figures 3.3-OWTP-6 and 3.3-OWTP-7 show close-range "before" and "after" views of the project (without landscaping and with landscaping at five years of maturity) as seen from Camino Pablo. From this location, portions of the new building would appear prominently during the initial period following construction. However, existing vegetation would partially screen the new structure. As shown in the DEIR Figure 3.3-OWTP-6 simulation, the new building would appear along the roadside within the context of foreground built elements, including traffic signals and meter boxes. From Camino Pablo, the new building would look similar to the existing chemical building (refer to Photo O4, DEIR Figure 3.3-OWTP-2). As indicated in the DEIR Figure 3.3-OWTP-7 simulation, within five years the proposed landscaping would substantially screen the building and storage tank as seen from Camino Pablo. With implementation of Measures 3.3-2a through 3.3-2c, the project would not substantially change the character of views experienced from Camino Pablo.

MM-3 Comment noted. Refer to **Response BM-2**.

MM-4 The commenter's opposition to the project is acknowledged.

Comment Letter MMM

From: mjm393@comcast.net [mailto:mjm393@comcast.net]
Sent: Tuesday, September 12, 2006 3:41 PM
To: Water Treatment Transmission Improvements Program
Cc: Zavadil, Judith; Foulkes, Katy; ajrothman@comcast.net; lidateds@comcast.net; runbets@comcast.net
Subject: Water Pumping Station Alternate Sight - Miner Road, Orinda

To Whom it May Concern:

For the following reasons we feel strongly that the water pumping station should **not** be built on the sight adjacent to the properties at 393 and 401 Miner Road in Orinda. MMM-1

1. **Negative effect on surrounding property values**.
- we have learned that there have been no studies done or data collected on the effects that these structures have on the values of property surrounding them. I think this is vital information for homeowners and **STUDIES SHOULD BE DONE IF EBMUD WANTS TO BUILD THESE STATIONS RIGHT NEXT TO OUR HOMES. <u>OUR PROPERTY VALUES ARE VERY IMPORTANT TO US.</u>**
- we at 393 Miner Road now look out our kitchen window and see a wooded pristine and pastoral view. We moved here from San Francisco and this was the feature that drove us to choose this as our home. If you build this plant, that changes our environment dramatically and I'm certain, damages the value of our property. There are numerous other, less intrusive, sights for this station to be built in the area. Yes, this sight is conveniently accessible for EBMUD due it's proximity to Miner Road, but we think the negative effects on the surrounding homeowners should be more important. MMM-2

2. **Other sights more suitable**
- it seems that the **primary** sight on Lombardy Lane has been abandoned simply because there are more complaints from homeowners for EBMUD to contend with . MMM-3 This primary sight appears better suited due to larger lot size. MMM-4 Based on the shape of the property on Lombardy it seems that a plant might not even be visible from the road. MMM-5 Anything built on the sight on Miner would be an eyesore for everyone living in and driving through the neighborhood. MMM-6
- with the hundreds of acres in the subject area owned by the Orinda Country Club, surely there has to be somewhere on the golf course that this plant could be built where it wouldn't intrude visually on the homeowners **sanctuary** and bring down their property values. MMM-7 Also, any noise problems this plant may produce would be lessened if it were built away from private homes. MMM-8 Again, the path of least resistance, vis-a-vis the number of OCC members that might complain, should not be the deciding factor in choosing the best sight. MMM-9

We obviously feel very strongly that this pumping station should and could be built on any number of other sights in the area and because no previous studies have been done or data collected by EBMUD concerning the effect on surrounding property values, we have retained legal counsel to assist us in discovering our rights on this important issue. MMM-10

Sincerely,
Michael & Mary Moran
393 Miner Road
Orinda. CA 94563

2.75 Michael and Mary Moran

MMM-1 This comment expresses opposition to construction of the Happy Valley Pumping Plant at the alternative site on Miner Road. That site is now the preferred site; however, approval of the selected site is at the discretion of the EBMUD Board of Directors. In response to concerns expressed in this and other letters commenting on the alternative site, the District has expanded the discussion presented in Chapter 6 of the DEIR to clarify and amplify the discussion of environmental impacts (refer to Chapter 3, Text Revisions, in this Response to Comments document).

MMM-2 EBMUD acknowledges these concerns and has proposed measures to minimize visual impacts in Section 3.3 of the DEIR, Visual Quality. Also, please refer to Section 2.1.5, Master Response on Social and Economic Costs, regarding property values.

Please note that the owner of the Happy Valley Pumping Plant Alternative site has submitted an application to the City of Orinda to construct an 1,100 square foot accessory structure at the same location; therefore, the future setting of the site could change whether or not the pumping plant is constructed at that location.

MMM-3 The owners of the DEIR Proposed Happy Valley Pumping Plant site intend to build a house at the site (refer to comments in letter RCW). The owner of the Happy Valley Alternative site has indicated he would be a willing seller to EBMUD. EBMUD has a preference for acquiring land from willing sellers and considers this and other factors in the selection of sites.

MMM-4 Although the site on Lombardy Lane is larger than the site on Miner Road, the latter provides sufficient space for construction of the pumping plant.

MMM-5 Photos HV1 and HV2 on DEIR Figure 3.3-HVPP-2 show the views of the site from Lombardy Lane. From these locations, the street frontage of the site is visible.

MMM-6 In response to this and similar comments, the District has prepared visual simulations of the Happy Valley Pumping Plant Alternative site. Refer to Chapter 3, Text Revisions, in this Response to Comments document. The visual simulations show the general appearance (shape, massing, orientation) of a pumping plant. As required by mitigation measures set forth in the DEIR, the pumping plant would be integrated with its surroundings through architectural design features and landscaping. Measure 3.3-2c (DEIR p.3.3-36) requires that the facility appearance be integrated with its environment. The District will involve neighborhood representatives during development of landscape plans (Measure 3.3-2a, DEIR p. 3.3-35). Refer to the exhibits following this page for examples of pumping plants designed to blend in with their surroundings.

MMM-7 The Happy Valley Pumping Plant will draw water from the Bryant Pressure Zone (PZ) via a new 16-inch pipeline at the intersection of Miner Road and Oak Arbor Road. As the new pumping plant must tie into the new pipeline, the only reasonable location within the Orinda Country Club would be along the western edge of the 6th hole, parallel to Miner Road. In order for EBMUD to access this portion of the property, a new site access road would have to be constructed off of Miner Drive and through the golf course. EBMUD believes it is inappropriate to build a new access road that crosses the fairway of the 6th hole. Further, as there is very little shoulder in this area and there is a brief slope up to the golf course, building such an access road off Miner Road would be highly problematic. As such, EBMUD does not consider constructing a new pumping plant at the Orinda Country Club a feasible solution.

MMM-8 See **Response RCW1-4** and Section 3.4 in this Response to Comments document for a discussion of operational noise levels at the Happy Valley Pumping Plant Alternative site. It is noted that the alternative site is not preferred by the commenter.

MMM-9 Refer to **Response MMM-3**.

MMM-10 Please see Section 6.10.3 in the DEIR, as well as Section 2.1.4, Master Response on the Need for and Alternatives to the Happy Valley Pumping Plant, in this Response to Comments document.

Comment Letter MP

From: MLPinkard@aol.com [mailto:MLPinkard@aol.com]
Sent: Friday, July 14, 2006 2:57 AM
To: Water Treatment Transmission Improvements Program
Subject: Century Old Oaks at Lafayette Reservoir

Mrs. Zavadil,

Trees are the primary creators of oxygen in our atmosphere, and every tree we chop down increases global warming.

Doubt it?

Stand outside on a hot, sunny day in the open, and then step under a tree. Yep -- that tree is absorbing the heat and protecting the animals, humans, and other plants from it.

Century-old trees MUST be preserved. There was a day when the rest of nature could take a back seat to people -- but no more. There are too many people and too little of nature now. Even under current population increases -- without the many millions of both illegal and so-called legal immigrants and their high birth rates that the government is forcing into this country -- ONE MILLION ACRES of wilderness is scraped and paved each year.

And on the Earth and the natural environment we depend for our very lives. Time to just say no to cutting down the trees -- especially old-growth ones. I'm certain sure that all those EBMUD engineers can find a better way than to clear cut trees that have been living since before any of us was born, in order to make that unnecessary water tank just to increase water pressure a bit.

Let's find another way to justify our jobs. If you need help with it, I'm an engineer myself -- in high-tech IT business applications -- with excellent powers of logic -- and I'm willing to go the course to find that better way.

MP-1

Best,

ML Pinkard

2.76 ML Pinkard

MP-1 In response to this comment and others expressing concern about loss of and disturbance to trees at the Highland Reservoir site, EBMUD is proposing the Revised Highland Reservoir Site for adoption and has modified the text of Measure 3.6-1e accordingly (see **Response LAF-7** and Section 3.3 of this Response to Comments document for more information).

Comment Letter MP1

September 1, 2006

WATER DISTRIBUTION
SEP 05 2006
PLANNING DIVISION

EBMUD
Ms. Judy Zavadil
Senior Project Manager
375 Eleventh Street
Oakland, CA 94607

SUBJUECT: Water Treatment and Transmission Improvements Project
Draft EIR

Dear Ms. Zavadil:

About a month ago I became aware that a public hearing was held in the City of Orinda on this project. I found out about this from Mr. Roger James (925) 376-3641) who I met when he drove up our private road. He said he was hired by the City of Orinda to study the EIR on behalf of the city.

I have talked with my neighbors and none of us received any notice in the mail or otherwise that EBMUD was even considering building a water tower on the Donald Pumping Station (DPS) on Ardith Drive. Our properties are easily within 300' of the DPS property line and I thought that by law we deserved a mailed notification, or does this not apply to non-private corporations. MP1-1

We feel that we deserve a meeting with EBMUD where it representative explains what is going to happen and when. Also what mitigation measures EBMUD plans to minimize visual impact on our properties. MP1-2 The DEIR is hundreds of pages long, studies maybe thirty different projects and the parts related to the DPS are scattered all across the document. MP1-3 It is unfair to require a homeowner, inexperienced with land use laws to navigate the document.

We live on Leslee Lane, just north of the DPS. Three of our homes abut the DPS: 100, 110 and 120 Leslee Lane. The visual impact on our homes would be enormous. MP1-4

On the one hand we applaud EBMUD for investing in our critical water system but want to minimize the impact on our homes. Please give me a call to arrange a time to meet with us.

Thank you,

Michael Pecar
510-301-7570

CC with attachment:
Orinda City Council
Orinda City Manager
Liz Johnson – 121 Leslee Lane
Greg and Julie Weber – 110 Leslee Lane
Bill and Minate Murphy – 100 Leslee Lane

2.77 Michael Pecar

MP1-1 EBMUD regrets that Leslee Lane was inadvertently left off the mail list for the public meetings held in Orinda on July 27 and August 2. After this oversight was discovered, EBMUD notified the neighbors on September 6 and held a special neighborhood meeting on September 12 to discuss the improvements at the Donald Pumping Plant site. Although it is not required by CEQA, EBMUD tries to individually notify landowners directly affected by District projects where possible.

MP1-2 EBMUD's Tim McGowan met with the commenter and other nearby residents on September 12, 2006. See also **Response PJ-2**, which discusses the meeting.

Section 3.3 of the DEIR presents measures to mitigate visual impacts. Measures 3.3-2a, 3.3-2b, and 3.3-2c (DEIR p. 3.3-35) would be implemented to mitigate impacts related to alteration of WTTIP sites and views from surrounding areas. Measures 3.3-5a and 3.3-5b will be implemented to address light and glare impacts.

MP1-3 Because the WTTIP projects are complex and numerous, the DEIR is also necessarily complex. The organization of the DEIR project description and the need for cross-referencing reflect a balancing of CEQA directives to be concise and avoid redundancies, while meeting the requirements specified in CEQA Guidelines Section 15124 (contents of a project description). The District took several steps to help readers navigate the document:

> Tables S-4 through S-9 summarize the impacts of each project in each jurisdiction and provide page references to allow readers to proceed directly to a particular discussion.
>
> Table 2-1 summarizes the alternatives and provides page numbers for readers to proceed directly to a particular project's description.
>
> EBMUD held seven public meetings (in addition to the meeting with the commenter) during the DEIR comment period. At each meeting, District staff demonstrated how to conduct searches in the electronic versions of the DEIR (CD or EBMUD website).
>
> The electronic versions of the DEIR were set up with bookmarks to enable the user to quickly locate specific sections, maps, tables and appendices.
>
> The comment period for the DEIR was extended to 88 days (DEIRs typically are circulated for 45 days).

MP1-4 Regarding impacts to views from Leslee Lane, refer to **Response ORIN-36**.

Comment Letter MT

From: Marc Trapani [mailto:m.trapani@sbcglobal.net]
Sent: Tuesday, September 05, 2006 10:44 PM
To: Water Treatment Transmission Improvements Program; Harlow, Nora
Cc: ixbehse@pacbell.net
Subject: Route B option for New Leland Pressure Zone Reservoir and Pipeline

To Whom It May Concern -

With regards to your request for comments, I am opposed to the route B alternative for the subject construction for various reasons as follows - MT-1

1) Sugarloaf Drive, the proposed initial access point, is a private road, maintained primarily by private funding. MT-2

2) This road is not designed in turn radius, width, or load to carry or accomodate large construction equipment to the extent required by such a project. MT-3

3) This route appears to be 5 to 15 times (or more) longer than most of the alternative routes. MT-4

Please feel free to call me should you have any questions.

Sincerely,

Marc Trapani
1360 Sugarloaf Drive
Alamo, CA 94507

Cell - 510-755-1755

2.78 Marc Trapani

Please note that the New Leland Pressure Zone Reservoir is examined at program level of detail in the WTTIP EIR. EBMUD is committed to engaging in a project-level EIR at an appropriate date in the future. Refer to Section 2.1.6, Master Response on the New Leland Pressure Zone Reservoir Alternatives, for more information.

MT-1 The commenter indicates that Sugarloaf Drive is a private road unfit for use as an access route for construction of the New Leland Pressure Zone Reservoir in accordance with Option B (see DEIR p. 2-86). The commenter specifically notes that the private road is maintained by private funding and is not designed to accommodate large construction equipment. The comment also notes that the Option B access route appears longer than the other alternative routes.

The New Leland Pressure Zone Reservoir is discussed at a programmatic level of analysis in the DEIR (see Table S-2 on DEIR p. S-5). The reservoir construction and the associated construction access routes will be analyzed in-depth in a subsequent project-level EIR. EBMUD will consider these comments indicating that Option B may not be a feasible access route to the preferred reservoir site as part of this EIR.

MT-2 See **Response MT-1**.

MT-3 See **Response MT-1**.

MT-4 See **Response MT-1**.

Comment Letter PA

EBMUD

Water Treatment & Transmission Improvements Program
Draft Environmental Impact Report

WATER DISTRIBUTION
SEP 11 2006
PLANNING DIVISION

Name: Pauline M. ANGELL

Address: 1411 Boulevard Way, WALNUT Creek, Ca. 94595-1303

Email: - None -

COMMENTS:

I'M CONCERNED FOR the big OAK TREES, PA-1

There ALSO IS A Creek, IS between the PA-2
phoperty LINES of NEIGHBORS, AND NEW
designated site FOR. pumping house, which
would REQUIRE A "VARIANCE." There would PA-3
be extRA NOISE for NEIGHBORS, ALONG with.
Olympic BLVD. TRAFFIC. Next would be the difficulty PA-4
of CONSTRUCTION VEHICLES entering AND
exiting, NO LEFT HAND TURNS off of Olympic BLVD.
IN My opINION I THINK the "COST" of The PA-5
project HAS The effect ON the site. I THINK
The ORIGINAL site IS the best.

Submit this form as you leave this meeting, mail or hand deliver the form to EBMUD at Mail Stop # 701, 375 Eleventh Street, Oakland, CA, 94607, or email comments to Judy Zavadil, Senior Project Manager, at wttip@ebmud.com.

NOTE: Comments on the Draft EIR must be received by EBMUD by September 18, 2006, at 4:30 pm. Comments should be in writing and include your name and address.

rec 9/14/06 B.

2.79 Pauline Angell

PA-1 EBMUD staff is recommending the proposed site on the south side of Olympic Boulevard for EBMUD Board approval. See **Response AH-2**.

PA-2 See **Response KL2-2** regarding potential impacts to the referenced creek.

PA-3 See **Response DGB-3** regarding the DEIR's analysis of potential noise impacts (and associated mitigation measures).

PA-4 See **Response AH-3** regarding the DEIR's analysis of potential traffic and circulation impacts (and associated mitigation measures), and the use of Olympic Boulevard, associated with construction of the Tice Pumping Plant.

PA-5 Refer to **Response PA-1**.

Comment Letter PC

From: Peter K. Clark [mailto:pkclark@ucdavis.edu]
Sent: Monday, July 17, 2006 9:43 PM
To: Water Treatment Transmission Improvements Program
Cc: eursu@ci.orinda.ca.us
Subject: Comments on draft EIR for WTTIP

Judy Zavadil:

EBMUD's analysis of alternative sites for the proposed Sunnyside Pumping Plant is seriously inadequate; lack of knowledge about local geotechnical and land-use issues has caused EBMUD to choose Site #2 when either Site #3 or Site #4 is probably safer and less costly. PC-1

Geotechnical problems with Site #2: Site #2 is probably in a landslide zone; the land above it (and above Happy Valley Road) has subsided at least three times in the last 13 years. Borings in our side yard directly downhill from the proposed site revealed layer upon layer of old slides and a very weak soil structure. Between our side yard and Site #2, the Klein's house (4107 Happy Valley Road) has suffered serious (and expensive) foundation problems, again indicating a slide path. An adequate foundation for a pumping plant at Site #2 might make its cost much higher than a plant at Site #3 or Site #4. PC-2

Land use problems with Site #2: Map D - SUNPP - 2 and Figure 3 - SUNPP - 3 each show an existing access road west of the proposed pumping plant. No such access exists. The former landowner illegally filled and paved the path to his horse shack, prompting threats of legal action form the City of Orinda, which has opposed access off Happy Valley Road as too hazardous. If EBMUD attempts to buy the land for Site #2 without granting an easement for access to development of the land beyond, the current landowner is unlikely to sell at less than a prohibitive price. PC-3

Peter K. Clark
4103 Happy Valley Rd
Lafayette, CA 94549

2.80 Peter K. Clark

PC-1 Geotechnical and land use issues associated with the pumping plant and required inlet/outlet pipeline to each pumping plant site were considered in the alternatives analysis. A summary of the Sunnyside Pumping Plant alternative analysis is presented in Section 6.10.3 of the DEIR.

EBMUD concurs with the commenter that there are numerous mapped landslides in the vicinity of the preferred site (Site #2) for the Sunnyside Pumping Plant. Slope stability specific to the Sunnyside Pumping Plant is discussed on DEIR p. 3.4-25. As the comment noted and as mentioned in the DEIR discussion, the Sunnyside Pumping Plant site is on a slope that could be susceptible to failure. The preferred site was classified as having a moderate landslide hazard (S2), as shown on Figure 3.4-2 in the DEIR. Due to the potential for landslides within the underlying sedimentary Orinda Formation, a project-specific geotechnical and geological investigation, and associated slope stability analyses, will be performed as part of the design for the Sunnyside Pumping Plant. This approach for mitigating any significant geologic impacts is detailed in Measure 3.4-1 (DEIR p. 3.4-25).

Each of the pumping plant sites have different site work and inlet/outlet pipeline requirements affecting the cost of the alternatives. The site-specific slope stability evaluation would provide the detailed geotechnical information required for a sound design of this structure. Conducted by professional geotechnical and civil engineers registered with the State of California, the geotechnical evaluation would include recommendations to correct slope stability hazards at the proposed site with such standard geotechnical engineering measures as engineered retaining walls incorporated into the building design, slope terracing, soil reinforcement, and drainage control measures. The geotechnical recommendations would ensure that the project would be designed so that the hazards of slope instability are less than significant.

Sites 3 and 4 have similar geotechnical issues. While the District is not aware of a mapped landslide at Site #3 (Nilsen, 1975), a shallow “creep zone” (1 to 4-feet deep) was noted in this area as part of the geologic mapping for the Orinda Downs Development, Subdivision 6462 (Hallenbeck & Associates, 1984). Construction of the Sunnyside Pumping Plant on this sloping property would require hillside grading, and keying in an engineered fill pad, to create a level site for the pumping plant. Such grading could lead to slope instability, and drainage and erosion issues toward the residential structures below, if appropriate mitigation measures are not incorporated into the design. While a mapped landslide is present within the drainage swale to the northeast of Site #4, no landslides were encountered during and after the construction of a 40-foot diameter temporary steel tank on an engineered fill pad directly behind the existing Happy Valley Reservoir in 1998. This is the proposed location for Site #4.

PC-2 See **Response PC-1**.

PC-3 The preferred location (Site #2) for the Sunnyside Pumping Plant is on property within the City of Lafayette (APN# 247-010-019). However, the proposed access to the site is via Happy Valley Road, across a parcel within the City of Orinda (APN# 365-450-008). EBMUD understands that Happy Valley Road is currently being widened in this area. While the proposed property is in Lafayette, EBMUD understands that it will need to coordinate with the City of Orinda regarding the proposed site access off Happy Valley Road.

Comments regarding Water Treatment & Transmission Improvements Program Draft Environmental Impact Report from Leslee Lane, Orinda

Following are the collective comments of the owners of the three houses on Leslee Lane in Orinda identified below concerning the new Ardith pumping station and reservoir. Two of us border the EBMUD property; all have the EBMUD property in visual sighting.

As you know, all property owners on Leslee Lane were unaccountably left out of your postcard distribution of information regarding the EIR, and we found out about the proposals affecting us entirely by accident within the last several weeks. Although EBMUD has delivered to each of us a CD with the EIR, none of us have had the opportunity to review it in any detail whatsoever. Therefore, some of our comments below may well be answered in or anticipated by the EIR, and we will be happy to have an answer of just a reference to specific pages in the report. PJ-1

Our comments are also based on the comments of Timothy McGowan of your organization, who kindly spent the better part of this Tuesday evening explaining what was going to happen on the site, and on a site inspection that several of us made. PJ-2

Because of the late notice to us, and our inability to devote the time necessary to even begin to understand the scope of the work proposed, we must reserve the right to offer additional comments at a later date. This should not inconvenience EBMUD since construction will apparently not begin until 2013. PJ-3

NOISE

[1] We were not clear from our discussion with Mr. McGowan about the orientation of the sound from the new pumping station. We understood that the sound orientation (venting) was away from the houses on Leslee Lane, but would like written assurance from EBMUD on that subject. Our houses are all in close proximity to the new pumping station, and would be adversely affected by any increased sound levels. PJ-4

[2] We will also appreciate a comparison of the sound level of the existing pumping facility (which is currently acceptable) and the sound level of the proposed new pumping station. PJ-5

CONSTRUCTION

[1] We understood from comments of Mr. McGowan that EBMUD contractors are given hours to work that are not consistent with Orinda ordinances. The Orinda ordinance allows construction activities on weekdays from 8 AM to 6 PM and Saturday from 10 AM to 5 PM, and heavy equipment use is not allowed on Saturday. We also understand that Orinda ordinances do not apply to EBMUD. Nevertheless, in view of the close proximity of the construction to our houses, and the unpleasantness of construction PJ-6

beginning at 7:00 AM (not allowed by the Orinda ordinances), it should not be difficult for EBMUD to observe the hours and other requirements of the Orinda ordinances. Otherwise, we would certainly offer comments regarding the hours of construction, etc., due to the close proximity of the construction to our homes, but the Orinda ordinances seem to offer a standard that should be acceptable to all. PJ-6

[2] We would like assurances in advance of construction that, when and if hazardous substances are used/unearthed/spilled, the home owners are notified immediately. Several of the homes will likely have young children. PJ-7

[3] The EIR table 3.9-4 shows that excavation from the project will be one of the highest emitters of dust of all construction activities. Please give us assurance that extreme care will be taken by the contractor to minimize dust emissions and possibly install sensors to monitor the effectiveness of mitigation measures. PJ-8

SOIL CONDITIONS

This is a critical issue for all of us.

It is very important that your construction (including pre-construction activities such as vegetation removal & ground disturbance) not adversely affect the soil and drainage conditions. All of us have had soil "issues" in the past, which appear to be solved. We will not be happy to face these issues again. In fact, we believe EBMUD is well aware of the geologic conditions since you have been fixing broken water mains in the middle of Leslee Lane for a few years.

The rains of the past winter resulted in sheeting water running down Leslee Lane, and all of us had supersaturated soil. EBMUD installed a concrete storm water drainage ditch at the bottom of your property fronting on 110 Leslee Lane several years ago to attempt to channel away excess drainage water. We are concerned that the project with substantially increased impervious surfaces may overwhelm that channel, or result in new avenues of storm water runoff. PJ-9

[1] Please assure us that the current plans take these risks into consideration and that all possible will be done to prevent any damage from soil movement or water runoff. PJ-10

[2] Please assure us that before preconstruction activities begin, the owners will be contacted by EBMUD representatives to discuss any current soil or water issues, and to discuss what is being done by EBMUD to prevent any damage to both the integrity of the hillside and the adjoining properties on Leslee Lane. PJ-11

[3] Please assure us that the vegetation planned for the site, and the removal of existing vegetation, will be done with these soil and water problems in mind. This will include, for example, not removing existing vegetation immediately before or during the rainy season. PJ-12

TREES

We are unhappy that the EIR shows 30-35 trees being removed. This seems to be the total of the existing trees on the site. All of us believe EBMUD has done a very good job of being a good neighbor with its vegetation, and will be very sorry to see the trees removed. PJ-13

The selection of new trees and their placement will be ***very*** important to us, both for preservation of views, to block the "view" of the new tank (which is sizeably larger than the existing tank) and for prevention of excess water runoff or soil movement. PJ-14

[1] For these reasons, please commit to us to consult with the residents of Leslee Lane well in advance of any cutting of trees ***and*** to consult with all of us regarding new tree placement and tree selection. We all have different elevations and views of your site, so our interests may vary, and certainly we do not have enough information at this time to comment on specifics. PJ-15

[2] And please likewise commit to begin the reforestation well before construction begins in order to assist in preservation of views and prevention of water runoff or soil movement. PJ-16

BERM

In our discussion with Mr. McGowan we briefly discussed the possibility of "berming" the new reservoir tank, i.e. building up the soil around the tank with a "volcano" effect. Is this now planned? If not, can it be added to the plans? That would obviously reduce any obnoxiousness of the new tank. PJ-17

Thank you for your consideration of our comments.

Greg & Julie Weber
110 Leslee Lane
Orinda, CA 94563

Mike & Shawne Pecar
120 Leslee Lane
Orinda, CA 94563

Philip Jensen &
Elizabeth Johnson
121 Leslee Lane
Orinda, CA 94563

September 15, 2006

2.81 Philip Jensen et al

PJ-1 EBMUD regrets that Leslee Lane was inadvertently left off the mailing list for individual notices of the public meetings held in Orinda on July 27 and August 2. After this oversight was discovered, EBMUD notified the neighbors on September 6 and held a special neighborhood meeting on September 12 to discuss the improvements at the Donald Pumping Plant site. CEQA does not require individual notices but EBMUD provides them where possible.

PJ-2 Comment noted.

PJ-3 EBMUD will respond to comments received during the designated comment period and will consider any late comments. Once the final EIR has been completed in compliance with CEQA, a public hearing will be held prior to certification. EBMUD will also coordinate with local communities in implementing the project.

PJ-4 On p. 3.10-46, the DEIR states, "The building's vent would be located on the south or east side of the building, not on the sides facing residential receptors to the north or west." Residential receptors to the north or west refers to the residences on Leslee Lane.

PJ-5 Pumping capacity of the pumping plant would not change,[1] so pump noise is not expected to change significantly. Therefore, the primary factor in determining how noise levels would change with project implementation would be the change in distance between the noise source and residential receptor. Of the three closest residences to the pumping plant, the proposed pumping plant would be located closer to residences on Leslee Lane and farther from one of the residences on Leslee Lane. The change in distance between the pumping plant and these three residences on Leslee Lane would be as follows:

	Approximate Minimum Distance to Receptor	
Closest Residential Receptor	**Existing Pumping Plant**	**Proposed Pumping Plant**
Residence on Leslee Lane to the north	175 feet	230 feet
Residence on Leslee Lane to the northwest	165 feet	130 feet
Residence on Leslee Lane to the west	220 feet	100 feet

Existing pump-related noise levels are not available because any measurement of ambient noise levels at the site would also measure traffic noise from Moraga Way, which dominates the noise environment. Other contributing factors to the noise environment must be considered when predicting future noise levels.

[1] The existing pumping plant has four 30-horsepower pumps, but only three would operate at a time. The proposed pumping plant would have two 100-horsepower pumps, but only one would operate at a time.

It is expected that traffic noise will continue to dominate the noise environment in the site vicinity. Since the proposed pumping plant would be closer to existing residences, it is expected that noise from the pumping plant would also be higher. However, the plant's vent opening location is the most critical factor in determining whether or not ambient noise levels would change with the proposed pumping plant. Noise levels can be as much as 20 dBA lower away from the vent opening. The largest vent opening on the existing pumping plant faces north (*toward* existing residences), while the proposed plant's vent would face south or east (*away* from existing residences on Leslee Lane). By locating the vent opening away from these three residences, any noise increase resulting from increased proximity to these residences would be offset by proposed relocation of vent openings away from residences. Therefore, no increase in pumping plant noise at these residences is expected.

PJ-6 Measure 3.10-1b has been revised to clarify that noise producing construction cannot be limited to the hours in each jurisdiction's noise ordinance then EBMUD would coordinate with the local jurisdictions to minimize noise happening outside of those hours. See also **Response LAF-13**.

PJ-7 Hazardous materials are materials that, because of their quantity, concentration, or physical or chemical characteristics, pose a substantial present or potential hazard to human health and safety or to the environment if released. If any such materials are found, notifications will be made pursuant to regulations administered by the Department of Toxic Substances Control (refer to the letter from this agency). It is not anticipated that large quantities of hazardous materials will be stored or used at the Ardith Reservoir and Donald Pumping Plant site. Contra Costa County's community warning system is designed to immediately alert residents within one mile of an incident, notify appropriate emergency response agencies, and provide updates about the incident and additional protective measures that may be required (see DEIR p. 3.11-7).

PJ-8 The contractor will be required to implement standard and enhanced dust control and exhaust control measures listed on DEIR p. 3.9-10. Monitoring sensors will not be used to determine whether the contractor is complying with these measures. Enforcing these measures based on visual observation (seeing visible dust) is the best way to ensure compliance by the contractor. Data from sensors would have to be collected and analyzed before compliance could be determined; this delay makes it impractical since an event would have already passed by the time compliance is determined.

The District can assure the commenter that, in implementing this project, all reasonable measures and precautions will be carried out to minimize dust emissions.

PJ-9 Potential slope instability issues at the Ardith Reservoir and Donald Pumping Plant site are discussed in Impact 3.4-1. As noted on DEIR p. 3.4-23, the site is located on moderate to steep topography that could potentially be susceptible to slope instability. However, impacts related to slope instability would be less than significant with implementation of Measure 3.4-1 requiring a site-specific design-level geotechnical

investigation to identify specific adverse slope instability conditions. In accordance with this measure, the design of the project would incorporate slope stabilization measures recommended by the geotechnical analysis.

Methods for control of stormwater and other discharges during construction would be specified in the SWPPP prepared in accordance with the statewide General Permit for Stormwater Discharges Associated with Construction Activity (Construction General Permit) described on DEIR p. 3.5-21 and in Impact 3.5-1. Further details regarding the permit addressing erosion control and stormwater management are provided in **Response ORIN-45**.

The concrete storm water drainage ditch at the bottom of District property fronting 110 Leslee Lane will remain in service after the project is completed. Post-construction stormwater controls would be described in the construction SWPPP. A post-construction stormwater control plan would be prepared, including a maintenance schedule for installed post-construction BMPs, as required by the General Construction Stormwater Permit, and overage under the General Construction Stormwater Permit would not be terminated until this plan is in place, permanent erosion control measures are in place, and the site is in compliance with all local stormwater management requirements. Any proposed use of stormwater infiltration methods would consider potential effects on slope stability, and would not be used if they could substantially affect slope stability at the site.

PJ-10 EBMUD will do what is legally and technically required to prevent damage from soil movement and water runoff. Measures proposed to control stormwater during and after construction are discussed in Impacts 3.5-1 and 3.5-6, and addressed in **Responses PJ-9**, and **ORIN-53**. Measure 3.4-1, DEIR p. 3.4-25, states that, "During the design phase for all WTTIP project components that require ground-breaking activities (excluding pipeline), the District will perform site-specific design-level geotechnical evaluations to identify adverse slope instability conditions and provide recommendations to reduce and eliminate potential slope hazards in the final design and if necessary, throughout construction." Slope stabilization measures may include appropriate slope inclination, surface and subsurface drainage facilities and erosion control measures.

Measure 3.4-1, DEIR p. 3.4-26, requires erosion control measures to protect slope stability. In addition, the proposed project as described on DEIR p. 3.5-20 requires that all water flowing from a job site shall be of such purity and cleanliness as not to introduce any contaminants into any waterway or storm drain system. To meet this objective, construction contractors are required to provide plans, procedures, and controls related to the discharge of water and the control of storm water during construction.

PJ-11 Prior to beginning construction, EBMUD will meet with the property owners to discuss soil and water issues, and review the recommendations of the geotechnical evaluation and the components of the SWPPP and post-construction stormwater control plan intended

prevent damage to the integrity of the hillside and the adjoining properties on Leslee Lane.

PJ-12 See **Response PJ-10**. Plans for removal and replacement of the vegetation at the Ardith Reservoir and Donald Pumping Plant site would consider the potential for soil erosion and movement, and methods to control these would be specified in the construction SWPPP which would be reviewed with property owners prior to construction as indicated in **Response PJ-11**.

PJ-13 Although an estimated 30-35 trees would be removed to accommodate the Ardith Reservoir and Donald Pumping Plant, many trees would remain on the site (refer to Map C-ARRES-1 in DEIR Volume 1) and additional trees would be planted as proposed as part of the project. Figure 3.3-ARRES-3 in Section 3.3 of the DEIR, Visual Quality, shows a conceptual landscape plan for the site. Pursuant to Measure 3.3-35 (DEIR p. 3.3-35), the District will coordinate with neighborhood representatives and the City of Orinda when developing landscape plans for the site.

PJ-14 Comment acknowledged. See **Response PJ-13** and the DEIR discussion of biological (Section 3.6 of the DEIR) and visual (Section 3.3 of the DEIR) impact mitigation.

PJ-15 Measure 3.3-2a, which would be adopted as a condition of project approval, states that "the District will coordinate with and involve neighborhood representatives during the development of final landscaping plans."

PJ-16 The District agrees to landscape before construction begins in areas that will not be disturbed by construction *before construction begins* in order to assist in preservation of views. Areas that are within the construction limits of the project will be landscaped following the completion of the project. In response to this comment, Measure 3.3-2a has been revised. See Section 3.2 of this Response to Comments document.

PJ-17 EBMUD has explored berming around the new reservoir. Building up the soil around the tank would require that the new Donald Pumping Plant be sited closer to the property line, that a six-foot-tall retaining wall be installed along the southwestern edge of the property, and that more trees be removed. The environmental impacts associated with this alternative would be greater than the preferred alternative presented in the DEIR, and consequently, the berming option is not being pursued. However, given the topography of the site, landscaping will provide effective screening of the tank (refer also to **Response PJ-13**).

Comment Letter PM

RECEIVED
AUG 23 2006
WATER SERVICE PLANNING

EBMUD

Water Treatment & Transmission Improvements Program
Draft Environmental Impact Report

Name: PAUL H EMALCOM

Address: 2461 OLYMPIC BLVD WC 94595

Email:

COMMENTS:

Come on, guys. If the Boulevard Way pumping plant is going to serve Boulevard Way, put the PP on that road/side of Olympic. Yes, I have a load of NIMBY going here, so the Ice PP site seems more suitable to me.

PM-1

Submit this form as you leave this meeting, mail or hand deliver the form to EBMUD at Mail Stop # 701, 375 Eleventh Street, Oakland, CA, or email comments to Judy Zavadil, Senior Project Manager, at wttip@ebmud.com.

NOTE: Comments on the Draft EIR must be received by EBMUD by August 25, 2006, at 4:30 pm. Comments should be in writing and include your name and address.

2.82 Paula Malcom

PM-1 EBMUD staff is recommending the proposed site on the south side of Olympic Boulevard for EBMUD Board approval. In addition, please note that numerous factors were considered during the alternative analysis for a new EBMUD facility. Based on hydraulics, water tanks or pumping plants are often placed in neighborhoods different from those that will be served. Water tanks must drain down to serve the residents below and pumping plants must pump up to serve the residents and tanks located above. The new Tice Pumping Plant would improve the water distribution throughout the Rossmoor area along Tice Valley Boulevard, which is south of Olympic Boulevard. Water would be drawn from the Leland Pressure Zone via a new 20-inch-diameter pipeline installed in Boulevard Way, and pumped up to fill the Tice Reservoir. The proposed Tice Pumping Plant to the south of Olympic Boulevard would be at the northern edge of the new pressure zone that it will serve; it will not serve Boulevard Way.

Mon. Sept 4, 2006

Comment Letter RC

Dear Judy,

Thank you for sending the CD that details the proposed EBMUD project on Olympic Blvd. We are even more concerned now with regard to the numerous trees that would be in jeopardy on your alternate site.

Enclosed, you will find the notice given to all the residents of Freeman Rd & Freeman Ct. We would definately like a meeting on site if possible, before the Sept. 18th deadline, preferably early in the week of Sept 11-15. to allow for response.

I will have been in touch with you already to discuss this date and time.

RC-1

RC-2

RC-3

Sincerely,
Rebecca Christensen
3311 Freeman Rd
Walnut Creek, CA
94595

Comment Letter RC

Proposed Pumping Plant | Comments/Letters must be received prior to Sept 18th

EBMUD - 1500-2000 sq. ft.

- Original site - S. side of Olympic next to gas station at end of Newell in empty court area

- Alternate site - N. side of Olympic - Lot behind Lees, Christensen's, Johnson's Property

* - This is the site EIR is recommending despite trees and further reports needed

Send E Mails to: wtip@EBMUD.com

Reports → EBMUD.com
Water Treatment Program
(EIR / Chpt. 6 pg. 6-40)
(Environmental Impact Report)

Project Rep:
Judy Zavadil
EBMUD
Mailstop 701
375 11th St
Oakland, CA 94607-4240
510-287-1191
JZavadil@EBMUD.com

Comment Letter RC

All residents on the S. side of Olympic are objecting to this project - impact is on one home, mineral trees, basically open space
- Many were notified

RC-4

2. Only the Lees + Christensens were originally contacted about this alternate site proposal on 8/29 w/ a deadline of Sept 18th

RC-5

3. No considerations have been made to the numerous heritage oaks behind our properties + the digging depths of 5 ft piles for a 1500-2000 sq. foot plant to install water lines out to Blod. Way. Obviously, tree roots will be cut; these huge oaks will die if they do this -
We saw what happened w/ the drainage lines installed from the project on the hillside. We ended up losing 4 oak trees -

RC-6

4. Across the street, they lose a mineral ext. of trees and have no residential impact short of one home, last side by that home. It is basically open land at that court site.

RC-7

Comment Letter RC

5. No reports have been issued or disclosed (2) with regard to the homes and drug lab that were on this property prior to abatement. EPA and Hazardous Removal agencies discovered chemicals that were being dumped & drained on to this land from the underground drug lab. According to the DEA that raided this property and seized the drug making equipment, they discovered many 50 gal drums of Chemicals that were leaking. RC-8

6. We risk losing some if not all of these 100 ft. plus, tagged heritage oaks should this project be approved. The damage would not be evident for several years - once it's too late. This happened when the Olympic Village Market Plaza went in. Do the laws with regard to not building w/in the canopy of these trees apply? What about zoning issues. RC-9 RC-10 RC-11

7. Property Values - will they be affected throughout the neighborhood? Ours, the Lee's & the Johnson's certainly will be RC-12

Comment Letter RC (3)

8. If a neighborhood meeting could be arranged with Judy Zahradka, Project Rep, would you be interested in attending? If so, please contact Becky Christensen at 935-1874, ASAP as we only have until Sept. 18th to mail, E-Mail and arrange this meeting. RC-12a

9. It's a busy time of year for all of us and I'm not quite sure why there was a delay in notifying this side of Olympic that would be affected by this project and the potential loss of trees & property values. I will notify you as to date, time, depending on the response and may actually ask for this meeting to be on site. We are also going to investigate how they can put this on a property that has R-10 zoning. The current owners have had difficulty in building and/or selling this land because it supposingly cannot be rezoned for commercial due to the narrowing of Olympic Blvd. lanes that affect the exit and entrance to this property. If any of you have RC-12b RC-12c

input or knowledge about these laws, it would be most helpful. It could be that EBRPD is pulling an Eminent Domain and these zoning laws don't apply.

10. Last but not least, we are very concerned about the noise that this plant will generate. According to Judy they do not operate at full capacity during the day and peak time hours. Therefore, this plant will be in full operation during the evening, night and early AM hours. I can't begin to imagine the impact that would have on our "quality" of life and the installation of a sound wall across the back of our properties is probably prohibitive due to the trees. This issue in particular affects all of us in this area.

Obviously, I am adamantly opposed to this project in every respect. I do not want a pumping plant in my backyard. I do not want the noise droning on when I try to use my backyard or sleep at night. And I especially do not want to risk

RC-12c cont.

RC-13

RC-14

the loss of these beautiful trees that enhance our neighborhood, despite any reports or promises EBMUD may make. We've all seen the history of these promises from prior projects. The end result... the trees die and are taken out, if not before they fall, potentially on our homes.

Hope to hear from you soon!

Becky Jon Christensen
3311 Freeman Rd.
Walnut Creek, CA 94595
(925) 935-1874
FAX (925) 937-7929

If you wish to view one of these plants in a neighborhood, there is one located at
4022 Walnut Blvd.
W.C.
They are in full operation after 6:00 PM

2.83 Rebecca Christensen

RC-1 EBMUD staff is not recommending selection of the Tice Pumping Plant Alternative Site. Although selection of sites is undertaken by the decision-making body, EBMUD is proposing to design and construct the new Tice Pumping Plant at the preferred site.

RC-2 Comment noted.

RC-3 EBMUD met with local residents at the alternative site on September 12, 2006. The commenter sent a second letter, Letter RC1, dated September 13, 2006, which discusses this meeting.

RC-4 Refer to **Response RC-1**. The comment also summarizes issues raised in other comments in the letter (refer to responses below).

RC-5 Consistent with requirements of the California Environmental Quality Act (CEQA), the District issued a Notice of Availability on June 23, 2006 indicating that the WTTIP DEIR had been published. EBMUD generally tries to notify landowners that could be affected by District projects. When the District discovered that individual notices were not sent to the residents of Freeman Road, an effort was made to contact landowners. District staff met with residents on Freeman Road at their request on September 12, 2006.

RC-6 Refer to **Response AH-2**. Tree issues, including potential damage, were considered in the DEIR in Section 3.6, Biological Resources. Table 3.6-5 (DEIR p. 3.6-31) sets forth measures to minimize potential damage trees.

RC-7 EBMUD staff is recommending the proposed site on the south side of Olympic Boulevard for Board approval. Refer to **Response AH-2**.

RC-8 EBMUD understands that a methamphetamine laboratory was illegally operated at the alternative site, and that the laboratory and associated structures have since been demolished and removed. The environmental database review conducted for the Tice Pumping Plant did not identify the former drug lab referred to in this comment as an environmental case. EBMUD has not performed a "Phase 2" environmental screening assessment of the soils and groundwater at the site. In the event that EBMUD pursues the development of the alternative site, an environmental screening assessment will be performed on the on-site soils and groundwater.

RC-9 See **Response AH-2**.

RC-10 The Contra Costa County code (Chapter 816-4) prohibits work within the dripline of heritage trees without a permit (many of the trees at the alternative site are considered heritage trees). This chapter does not require a permit for or prevent trimming, pruning, or maintenance of a heritage tree as long as it is not destroyed or substantially changed

in form or shape. Please note, however, that pursuant to California Government Code Section 53091, EBMUD, as a local agency, is not subject to building and land use zoning ordinances (such as tree ordinances) for projects involving facilities for the production, generation, storage or transmission of water. It is, however, the practice of EBMUD to work with host jurisdictions and neighboring communities during project planning and to conform to local environmental protection policies to the extent possible. See **Response AH-2** for details of the mitigation measures pertaining to protected trees included in the DEIR. These measures incorporate many permit requirements of Contra Costa County (and other jurisdictions) to minimize impacts to heritage and otherwise protected trees.

RC-11 Please see **Response RC-10**.

RC-12 Refer to Section 2.1.5, Master Response on Social and Economic Costs, regarding property values.

RC-12a This meeting occurred on September 12, 2006.

RC-12b Refer to previous responses.

RC-12c Please refer to **Response HOA-9**. As a local agency engaged in a project to improve water treatment and transmission, EBMUD is not required to comply with local zoning for projects like the Tice Pumping Plant. For more information on this issue, refer to Section 2.1.3 of this Response to Comments document, Master Response on EBMUD Obligations to Comply with Local Ordinances, Obtain Local Agency Approvals and Permits, and Pay Local Agency Fees.

RC-13 Regarding noise impacts at the alternative site for the Tice Pumping Plant, refer to **Response DGB-3**. EBMUD is proposing to design and construct the new Tice Pumping Plant at the preferred site. Therefore project specific studies are not currently planned for the alternative site.

RC-14 See **Response RC-1**, above.

September 13, 2006

EBMUD
Mail Stop 701
375 11th St.
Oakland, CA
94607-4240

As residents of Freeman Rd and Freeman Court in Walnut Creek, we are adamantly opposed to the alternate site on North Olympic Blvd being proposed for the Tice Valley Water pumping plant, by EBMUD. RC1-1

We were never notified in writing or otherwise, of any pumping plant project and were not notified until Aug. 29, 2006 of this alternate but "preferable" site. RC1-2

All residents in the area of the original site on South Olympic Blvd. have been on board and stated their opposition since November 2005. RC1-3

Myself and one other resident on Freeman Rd. received a phone call on Aug. 29. 2006 and were told of this plan and the use of land that lies directly behind 3 homes, including mine. We were also told that if we had any opposition to this alternate site, we must submit our letters no later than Sept. 18. 2006 – RC1-4

2 1/2 weeks from first notification. Not only are we appalled at the oversight on the part of EBMUD, we also feel we have not been given the opportunity of "fair and due process" to state our objections. South Olympic has had 10 months to do what we are struggling to do in 2 1/2 weeks. RC1-4

Our reasons for opposition to the use of the North Olympic site are stated below and we have had unanimous support in our small but active neighborhood of twenty-plus homes.

1. Trees -

The alternate site on North Olympic is a long, fairly narrow lot completely surrounded by large oak trees. Many of these trees stand at over 100 ft. and are tagged heritage oaks. It is known that oak trees have a very shallow root system. Should the roots of these trees be cut in the construction and excavation of this land, those trees will die. We have already seen this happen on this lot. The potential for them to fall on any of the five homes surrounding this lot is tremendous. The potential for loss RC1-5

of life if this were to happen, is self evident. We cannot afford to lose these trees under any circumstances and the jeapardy that they and the property owners are placed in for this project, is undeniable. No current arborist report has been done for this site. No consideration for code and canopy requirements in Contra Costa County are being acknowledged if they put a twenty foot, 2000 sq. ft. building on this land. This is twice the height of the existing home on this property should the height of the plant be ten feet. This obviously requires ten feet of subterranean excavation. The trees will be damaged and ultimately die with either construction plan. RC1-5

2. Proposed Site - South Olympic

This original site was determined to be appropriate for this plant. It is open space at the dead end/open court at the end of W. Newell Ave. It does not affect any homes as there are no residents that live on the property line of this site. There are mineral trees under 30 ft. and low shrubs that RC1-6

now occupy the area. This is an ideal location as it has absolutely no impact on any residents. It does not infringe on any property lines. It will not damage any 100 ft., 300 year old heritage oak trees. And it will not affect the safety of any homes and the families who live in them. RC1-6

3. Noise -

The hours of operation for this plant are from 6:00 PM to 6:00 AM. Unfortunately, no matter how minimal, the noise generated from this plant will be heard by the residents who use their backyards in the evening and sleep during these hours. RC1-7

4. EIR -

We are unclear as to how a recommendation can be made to declare the North Olympic site, though alternate, as preferable. No EIR has been done on this site prior to the Sept. 18, 2006 deadline and we have no opportunity to review any reports that may follow afterwards. Once again, where does "fair and due process" apply for those of us surrounding RC1-8

the North Olympic area? How can they even consider this site without these reports? There has been no recognition of the creekbed set backs that exist on this property. RC1-8

No Environmental Impact Report has been done on this land that once housed a drug lab 5-7 years ago. This lab was dumping toxic chemicals on to the land and many leaking 50 gallon drums of chemicals were removed when this meth lab was taken down by the DEA. Now they want to put a water pumping plant on this land? Had we been notified in a timely manner of this proposed project. These issues would have been brought to light with an appropriate amount of time to investigate. Unfortunately, not the case and this issue definately requires further review. RC1-9 RC1-10 RC1-11

We are in hopes that the Board of EBMUD will strongly take these four factors in to consideration prior to their decision later this year. The risks to use the alternate site at North Olympic Blvd. far out weigh any risks on the original site at South Olympic Blvd. RC1-12

with open space. We do not have as many residents in our area as does the South Olympic site but we certainly have the most to lose should this water pumping plant go in at North Olympic Blvd. We hope that you will agree. RC1-12

Thank you for your time, consideration and the opportunity to express our concerns.

Sincerely,

Rebecca Christensen
3311 Freeman Rd.
Walnut Creek, CA
94595

Addendum to Rebecca Christensen Letter Dated September 13, 2006

Tice Pumping Plant

Comments in opposition of Alternative Proposed Site on the North Side of Olympic Blvd. in the Vicinity of 2424 Olympic Blvd. Versus the Original Fully Analyzed Site on the South Side of Olympic

In general the comparison does not make sense my mind, open land not immediately next to homes or businesses resulting in small shrub and scrub oak removal versus a site surrounded on three sides by residential property with potential damage to very large and very old heritage oak trees. Following is a summary of points and issues:

- Construction access and area disruption on land at the end of court, on a side road off of Olympic, has to be substantially better or less damaging than the alternative site on Olympic Blvd. at a turn in the road, just past a major intersection, that is the main artery for traffic in the area. RC1-13
- Site access for EBMUD employees after the completion of the project for plant and site maintenance would suffer the same consequences. RC1-14
- There is a lack of complete EIR information and arborist reports to properly evaluate the site and for affected neighbors to review. There are not details plans on the alternative site as to location, pictures before and after, hazardous materials testing (site had a structure that burned down about 5 years ago that was an illegal meth. drug lab closed down by the DEA), water table analysis, etc. RC1-15
- The owner of the property was contacted, but the residents of Freeman Road and Freeman Court, three homes of which line the alternative site, were not notified of the plans for the plant (due to EBMUD oversight) until two and one half weeks before the deadline to submit comments. This provided effectively no time to properly assess and get expert opinions, such as arborists and land use attorneys. RC1-16
- The placing of what is effectively a commercial plant on a vacant lot at the end of a street about 120 feet from one residence versus the alternative of a site immediately on the property line of four residences, does not make sense. Additionally, any negative effect on neighboring residential property values is magnified many, many times over. RC1-17
- Trees on the alternative site are 100+ feet tall and over 200 year old tagged heritage oaks. They are part of a row of such interdependent trees that span the length of Freeman Road to Freeman Court, which is immediately parallel to the north side of the alternative site. The construction on the site will require construction within drip lines of some of these heritage oaks which is in direct conflict with county rules for any other development use. The residents of the area have experienced, first hand, the destruction of other oak trees in the area when the shopping mall at the corner of Tice Valley and Olympic was built and RC1-18

when a storm drain was installed at the alternative site, after being told that measures would be taken to eliminate such and an outcome. RC1-18

- Construction at the alternative site may very likely result in creation of time bombs of death, destruction and very significant neighboring property value declines if one or more of the large oak trees fell at all, and particularly on a neighboring residence. RC1-19
- I can not tell from my reading of the draft EIR if the site is even wide enough to handle the plant and access roads, at all, even if the trees were not a factor when considering County creek set back rules. RC1-20
- This resident does not want a 20 foot tall building across his back yard fence with any noise generation in the evening hours when I want to enjoy the peace and privacy my back yard RC1-21
- When you review the address of local residences submitting opposition to the plant alternative site, you will note a united, emotionally charged, politically active, neighbor hood of residences on Freeman Court and the end of Freeman Road. RC1-22
- EBMUD does not have another local site of the same proposed size, 10, above ground, for the neighboring residents to see and hear. Placing the plant underground at the alternative site would not work due to tree issues, water tables, etc. RC1-23

RC1-24

Petition of Residents

Rebecca & Jon Christensen
3311 Freeman Rd.
Walnut Creek, CA. 94595
Rebecca Christensen

Elizabeth & Richard Lee
3303 Freeman Rd.
Walnut Creek, Ca 94595
Elizabeth Lee

Richard & Elizabeth Lee
3303 Freeman Road
Walnut Creek, CA 94595
Richard Lee

JON CHRISTENSEN
3311 FREEMAN RD
WALNUT CREEK, CA 94595
Jon Christensen

Kate Lyon + adam Lyon
3300 Freeman Rd.
Walnut Creek, CA 94595

Petition of Residents (2)

John & Virginia Cockrell
3346 Freeman Rd
Walnut Creek, Ca 94595

Virginia M. Cockrell
John T. Corbell

Stephen J. Fowle
3351 Freeman Rd
Walnut Creek

JOHN & ALICE THAUNSO
3351 FREEMAN RD.
WALNUT CREEK, CA 94595

JIM NATION
JAN NATION
3306 Freeman Rd
Walnut Creek, CA 94595

Robert H Hudziak
3370 Freeman Rd
Walnut Creek CA 94595

Petition of Residents

Rebecca & Jon Christensen
3311 Freeman Rd.
Walnut Creek, CA. 94595
Rebecca Christensen

Mike & Karen Perry
3383 Freeman Rd
Walnut Creek 94595

Marney Ackerman
3375 Freeman Rd
Walnut Creek 94595
Marney Ackerman

David Ackerman
3375 Freeman Rd.
Walnut Creek, Ca 94595

John & Ann Theodoropoulos
12 Freeman ct
Walnut Creek, CA 94595

Petition of Residents (2)

Gene S Bozorth
3380 Freeman Rd W.C 94595
935-4292
Donald Bozorth

William Greif
3386 Freeman Rd
Walnut Creek CA 94595
930-9873.

Lisa Greif
3386 Freeman Rd.
WC 94595

Bill Boselli
3399 Freeman Rd
W CCA 94595

Tracy Broback
3304 Freeman Rd
Walnut Creek, CA
94595

Matt Broback
3304 Freeman Rd
WC, CA 94595

Jim & Mary Beall Neighbor
3314 Freeman Rd
Walnut Creek, Ca 94595
Mary Beall Neighbor

3314 Freeman Rd.
W/C Calif 94595

Robert Ford
3322 Freeman Rd.
Walnut Creek, CA 94595

Gail R. Ford
3322 Freeman Rd.
Walnut Creek, CA 94595

Donna & Tim Crawford
3330 Freeman Rd.
Walnut Creek CA. 94595
Donna Crawford

Tim & Donna Crawford
3330 Freeman Rd
Walnut Creek CA 94595
Tim Crawford

Kim Henderson
3338 Freeman Rd.
Walnut Creek, CA 94595

Adam Henderson
3338 Freeman Rd
Walnut Creek, CA 94595

Richard Romnow
3343 Freeman Rd
Walnut Creek CA 94595
Richard Romnow

Petition of Residents (2)

SUZANNE YUSKI 48 FREEMAN CT WALNUT CREEK, CA 94595
(925) 906-9752

Sarah Johnson Sarah Johnson
3319 Freeman Rd.
Walnut Creek, CA.
94595

Mike Johnson, MJohnson
3319 Freeman Rd.
Walnut Creek CA 94595

Petition of Residents

1. Rebecca & Jon Christensen
3311 Freeman Rd.
Walnut Creek, CA. 94595
Rebecca Christensen

2.84 Rebecca Christensen

RC1-1 The commenter's opposition to the alternative site for Tice Valley Pumping Plant is acknowledged. EBMUD staff is not recommending selection of that site. However, approval of WTTIP projects and project locations is at the discretion of the EBMUD Board of Directors.

RC1-2 Refer to **Response RC-5.**

RC1-3 Refer to **Response RC-5**.

RC1-4 Refer to **Response RC-5**.

RC1-5 See **Response AH-2**.

RC1-6 EBMUD staff is recommending the proposed site on the south side of Olympic Boulevard for EBMUD Board approval.

RC1-7 The commenter's opposition to this alternative location for the Tice Pumping Plant is noted. District staff are not recommending this alternative site. As noted in **Response DGB-3**, this pumping plant will not be allowed to exceed the 45-dBA nighttime noise limit at the closest residential receptors regardless of the location. See **Response DGB-3** for more discussion.

RC1-8 The Tice Pumping Plant alternative site was evaluated in Chapter 6 of the DEIR. Refer to **Response RC1-1**.

RC1-9 See **Response MJ-4**.

RC1-10 Refer to **Response RC1-8**. As the alternative site is not being recommended for approval, no additional study of soil contaminant impacts will be conducted at this time.

RC1-11 Refer to **Response RC1-2**.

RC1-12 As part of the CEQA analysis on this complex project, EBMUD must balance a variety of competing considerations. The number of neighboring residences was among the considerations for this project component. This is one of the reasons EBMUD staff is recommending the proposed site south side of Olympic Boulevard for approval by the EBMUD Board of Directors.

RC1-13 See **Response AH-3** regarding the DEIR's analysis of potential traffic and circulation impacts (and associated mitigation measures), and the use of Olympic Boulevard, associated with construction of the Tice Pumping Plant (both the proposed and alternative sites).

RC1-14 See **Response AH-3** regarding the DEIR's analysis of potential traffic and circulation impacts (and associated mitigation measures), and the use of Olympic Boulevard, associated with construction of the Tice Pumping Plant. As described on DEIR pp. 3.8-7 and 3.8-8, the various project facilities (including the Tice Pumping Plant), once installed, would only require maintenance activities similar to those needed under existing conditions. The level of traffic associated with those maintenance activities would be insignificant compared to that of the facility construction, and the impact of accessing either the proposed or the alternative site would be less than significant.

RC1-15 Refer to **Response AH-2** regarding potential impacts to trees; refer to **Response RC-8** regarding the former illegal methamphetamine laboratory; and refer to Section 2.1, Master Response on Social and Economic Costs, regarding economic property values.

RC1-16 Refer to **Responses RC1-1** and **RC1-2**. A meeting was held with residents on Freeman Road on September 12, 2006 and a period of over 60 days was provided for comments on the DEIR.

RC1-17 Refer to **Response RC1-12**.

Refer to **Response AH-2**.

RC1-19 Refer to **Response AH-2** regarding trees and mitigation of impacts.

RC1-20 As discussed in the DEIR, the alternative site has sufficient space for a pumping plant without adversely affecting the creek.

RC1-21 EBMUD acknowledges the concerns about visual and noise effects of alternative Tice Pumping Plant site. Refer to **Responses RC1-7** and **DGB-3** for additional discussion.

RC1-22 EBMUD acknowledges the opposition from residents on Freeman Court and Freeman Road.

RC1-23 Comment noted. EBMUD is considering the preferred site and alternatives for the Pumping Plant.

RC1-24 These are the attached signatures of residents.

Morgan Miller Blair
A LAW CORPORATION

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DANIEL A. MULLER
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September 18, 2006

WATER DISTRIBUTION
SEP 18 2006
PLANNING DIVISION

VIA FACSIMILE & U.S. MAIL
Judy Zavadil, Sr. Project Manager
East Bay Municipal Utility District
P.O. Box 24055, MS701
Oakland, CA 94623-1055

Re: Comments on Draft EIR for EBMUD's Water Treatment and Transmission Improvements Project
(Our File No.: 10426-001)

Dear Ms. Zavadil:

This office represents Robert and Clarita Wooldridge in matters related to the East Bay Municipal Utility District's ("EBMUD") Water Treatment and Transmission Improvements Project (the "Project"). This letter is intended to provide comments on the draft Environmental Impact Report ("DEIR") for the Project.

By way of background, Mr. and Mrs. Wooldridge own the residential parcel located at 162 Lombardy Lane in Orinda (the "Wooldridge Property") which is identified in the DEIR as a proposed site for a water pump station, called the "Happy Valley Pumping Plant" ("HVPP") in the DEIR. It appears from the DEIR, that the Wooldridge Property may also be proposed for use as a staging site for construction equipment and vehicles during the rather lengthy construction of the HVPP and related water pipeline work within the Lombardy Lane/Sleepy Hollow area. RCW-1

My clients have owned their parcel for 30 years. They lived for many years next door, at 164 Lombardy Lane, before relocating for business reasons back East. They retained the Wooldridge Property with the heartfelt intention of building their home upon return to California. Having returned, the Wooldridge's are actively engaged in the steps leading to constructing their home on their property during the next year. Their undeveloped parcel is a predominantly level site, which is unusual in the Sleepy Hollow area of Orinda. As explained herein, in addition of depriving Mr. and Mrs. Wooldridge of the opportunity and long-held desire to return to their home town, locating the proposed HVPP on the Wooldridge Property would be highly undesirable and improper from practical and cost standpoints, as well as from a CEQA-compliance perspective. Basically, as a threshold matter, the DEIR does not explain the need for the HVPP and pipeline, and further does not explain (if these improvements are truly needed) why the alternative pumping station site, at Miner Road, was not the "preferred" alternative. RCW-2

As part of our comments, and except as specifically noted otherwise herein, we hereby reiterate the comments on the DEIR (1) that were submitted on behalf of the City of Orinda by the Shute, Mihaly & Weinberger law firm, dated September 11, 2006, (2) that were within my clients' prior comment letter dated August 1, 2006, (3) that were in Wayne and Jo Alice Canterbury's comment letter dated July 28, 2006, (4) that were submitted by Jim and Francoise Cervantes, dated July 28, 2006, and (5) that were submitted by Mike and Sally Rubinstein on July 17, 2006 and last week. (Several, but not all, of these submittals are attached.) Except as noted, the comments in those other letters or e-mails, and the related submittals, are hereby incorporated by reference, as if fully set forth herein. RCW-3

As noted in the aforementioned comment letters, Orinda's elected officials and residents have expressed serious concerns with the disproportionate impact of the Project on the City's residents and neighborhoods. City officials and residents alike have looked to the DEIR for a clear and compelling description of why the Project is needed, and as a focus of this letter – why the HVPP and pipeline are needed - and what can be done to avoid severe community disruption and environmental impacts during and after construction. Unfortunately, the DEIR fails to clearly explain why the Project components (especially the HVPP and pipeline) are necessary. Nor does the DEIR adequately consider alternative sites or nationally recognized alternative technologies that could help avoid the serious impacts on Orinda and its residents caused by the Project. RCW-4 RCW-5

For these reasons, the Wooldridge's cannot support the aspects of the Project that are detrimental to their property. Involuntary acquisition of all or portions of their property, traffic congestion, road closures, noise, visual blight, and biological impacts from Project components affecting the Lombardy Lane area are unacceptable, and are not adequately analyzed under CEQA. The DEIR thus should be revised to include consideration of real alternatives that will not so negatively affect the Wooldridge's and their neighbors. To the extent the need were to be demonstrated adequately for the improvements proposed along Lombardy Lane, there very well may be other feasible locations for expanding the capacity of EBMUD's water treatment and distribution system. There are almost certainly other feasible treatment technologies that would enable EBMUD to maintain compliance with applicable regulations without subjecting the community to serious disruptions. RCW-6

As detailed below, the DEIR fails to adequately disclose or analyze the significant environmental impacts of the Project, and also fails to provide adequate mitigation for the impacts it does identify. Moreover, the DEIR does not contain sufficient information about the Project's components, its growth inducing and cumulative effects, and the feasibility of alternatives to permit a reasoned and informed decision. As a result, the DEIR fails to meet the standards set forth in the California Environmental Quality Act ("CEQA"; Pub. Res. Code § 21000 et seq.) and the CEQA Guidelines (Tit. 14, Cal. Code Regs., § 15000 et seq.). The DEIR must be revised and recirculated before any action may be taken on the Project or any of its RCW-7

component parts. Furthermore, as part of any such revision and recirculation, **the HVPP and associated pipeline should be removed entirely as a project component, or – at a minimum – the HVPP itself should be relocated off of the Wooldridge's site to the alternative site analyzed in the DEIR, on Miner Road, where the land owners are apparently willing to sell to EBMUD, and causing fewer impacts to the Lombardy Lane neighborhood.** RCW-7

I. The DEIR Does Not Adequately Describe the Project or its Necessity

The inclusion in an EIR of a clear and comprehensive description of the proposed project is critical to meaningful public review. County of Inyo v. City of Los Angeles, 71 Cal. App. 3d 185, 193 (1977) (Inyo II). The DEIR fails to provide an adequate Project description in several key respects. RCW-8

First, the DEIR's descriptions of "project-level" actions are confusing and lack necessary detail. The DEIR's complex organization forces readers to cross-reference between multiple sections and volumes in order to obtain a complete description of any particular Project element. The need for extensive cross-referencing limits the usefulness of the DEIR as an informational document, and thus undermines CEQA's core purpose.

Second, and more importantly, the DEIR does not clearly or consistently correlate the Project's numerous objectives and purposes ("need") with the Project's individual elements or components. Put differently, it does not clearly state how each facility or component is needed to further any particular objective or goal. Instead, the DEIR describes a number of purposes and objectives, and a number of potentially interrelated actions or facilities, at a vague and general level that does not permit the decision-maker to undertake an informed balancing of needs for the components, in light of their benefits and environmental costs. This lack of correlation between the Project and its purposes renders the DEIR fundamentally deficient as an informational document. RCW-9

For example, the DEIR suggests that aspects of the Project are necessary to comply with state and federal regulations, but it does not explain how the regulations dictate particular facilities or upgrades. The DEIR lacks a clear summary of federal and state regulations governing EBMUD's water treatment and distribution activities. The purpose and need sections (Section 2.2.2, p. 2-14, and following) mention various regulations in general terms, but do not contain specific citations or information about which state or federal agencies are responsible for determining compliance. A section clearly explaining the regulatory scheme governing EBMUD's operations, and identifying the agencies responsible for its enforcement, would be extremely helpful to both the public and decision-makers in evaluating the need for particular Project components. As a result, the public and decision-makers can only speculate as to whether many of the actions evaluated in the DEIR will ever be necessary. RCW-10

Table 2-3, which purports to summarize the need addressed by each specific water treatment improvement action, contradicts the text of the DEIR. Table 2-3 states that the proposed clearwell, pipeline, pumping plant, and electrical substation are necessary to address the requirements of the state NPDES permit for the Orinda WTP (p. 2-17). The text of the DEIR, however, does not cite the NPDES permit as requiring installation of a clearwell, pipeline, pumping plant, or electrical substation; rather, the need for these proposals is described as stemming from either water demand requirements or infrastructure upgrades. (pp. 2-14, 2-21 - 2-22.) As a result of these contradictions, the DEIR fails to explain clearly why any of these project components are necessary. Nowhere does the DEIR explain in one coherent passage how the various Project components are interrelated, why they are all necessary, and whether there are any alternatives that would fulfill the Project objectives. Without any correlation between particular improvements and relevant needs, it is impossible for decision-makers or the public to determine why these improvements are necessary. The DEIR should be revised to present this information in a clear, meaningful, and unified form. RCW-11

Especially of concern to the Wooldridge's and other residents along Lombardy Lane, is the DEIR's failure to clearly explain why particular distribution system improvements - namely the new pumping plants, pipelines, and reservoir proposed for locations in Orinda - are necessary. Table 2-3 contains only a single reference to the entire "Distribution System," and then identifies several general reasons why improvements to this system are necessary. (p. 2-17.) Other potential justifications for these improvements scattered throughout the document are stated in similarly general terms. As to the HVPP and pipeline affecting the Wooldridge's and their neighbors, the DEIR's discussion is particularly unclear and inadequate. Section 2.6.5 (pp. 2-74 – 2-75) merely states that the proposed pumping facility: RCW-12

> "would be part of the Las Aromas Pressure Zone, which is supplied by the Bryant Pressure Zone (north of Highway 24). There is currently inadequate pumping capacity to supply the Las Aromas Pressure Zone during maximum-day demand conditions; an additional 3.2 mgd is required to meet maximum demand conditions in 2030. The proposed project would meet existing and anticipated future demand in this area and would supply the Happy Valley Reservoir." (p. 2-74.)

The DEIR then describes the design and construction characteristics of the proposed HVPP and pipeline, *as if it is a foregone conclusion that such facilities are the only alternative for solving the alleged deficiency.* Also, as to the alleged deficiency itself, presumably driving a need for the facility, the above language suggests that *the alleged deficiency might not actually be a current problem, but might only arise upon "build-out" in the year 2030.* However, there is no mention of what amount of development (in an essentially built-out area) is anticipated by RCW-13

the year 2030 that would create the deficiency. It is also unclear what is meant by the above statement that these facilities "would supply the Happy Valley Reservoir." How is such supply necessary? RCW-13

Further, it is notable that the supposed "need" for the HVPP and pipeline does not appear to be driven in any way by the aforementioned regulatory requirements, which are the proffered reason or cause for many of the other aspects of the proposed Project. This makes it all the more likely that something can be scaled back or eliminated as to this part of the Project. By failing to describe the need for the HVPP and pipeline, and thus allow consideration of alternatives to meet such need, the DEIR does not comport with CEQA. RCW-14

We strongly believe that further elaboration of these issues may well result in a conclusion that the severe impacts on the Wooldridge's and their neighbors (discussed below) may be avoided or significantly decreased by either eliminating the HVPP and pipeline Project components, or by using various alternative means for achieving EBMUD's true needs. The documents we have received from EBMUD pursuant to our Public Records Act request strongly suggest that the HVPP and pipeline are not crucial components of the overall Project. For example, an EBMUD memo dated February 17, 2005, notes that the Project, previously called the "Lamorinda Water System Improvement Plan" had as its objectives to "reliably and efficiently meet current and future demands and to meet current and foreseeable future regulations with a margin of safety. Other objectives include WTP facility and transmission system infrastructure improvements *to improve upon current operating efficiencies and security*." (Emphasis added.) This suggests varying reasons for the Project's components, and that some components are more "necessary" than others. Since, as noted above, regulatory issues are not driving the HVPP and pipeline proposal, and it is wholly unclear what future demands may occur in what seems to be an essentially "built out" neighborhood – and thus demand may not increase substantially - then the "need" for the HVPP and pipeline may stem from a desire, rather than need, to improve operating efficiencies and security, which are perhaps not truly necessary. (Further discussion of this issue is also contained below, in Section III relating to the DEIR's alternatives analysis.) RCW-15

In sum, as a result of the above omissions and contradictions, the DEIR fails one of its most basic purposes: explaining why the Project is necessary overall, and in particular why the HVPP and pipeline are necessary. RCW-16

II. The DEIR Does Not Adequately Disclose, Analyze, or Mitigate the Project's Potentially Significant Environmental Impacts

RCW-17

An EIR must be detailed and complete, and must reflect a good faith effort at full disclosure. (CEQA Guidelines § 15151.) The document should provide a sufficient degree of

analysis to inform the public about the proposed project's adverse environmental impacts and to allow decision makers to make intelligent judgments. (Id.) In reviewing the legal sufficiency of environmental review documents, the courts have emphasized that an EIR must support with rigorous analysis and substantial evidence the conclusion that environmental impacts will be insignificant and will be adequately mitigated. (Kings County Farm Bureau v. City of Hanford (1990) 221 Cal.App.3d 692.) As set forth below, the DEIR fails to comply with these standards. RCW-17

A. The DEIR Inadequately Analyzes and Mitigates Land Use Impacts

First, the DEIR combines three topics - land use, agriculture, and recreation - into one "Land Use, Planning, and Recreation" section (Section 3.2, p. 3.2-1 et seq.). These topics are typically analyzed separately. RCW-18

Secondly, Section 3.2 does not adequately address the Project's potentially significant conflicts with land use policies or neighboring land uses. As to this issue, the DEIR's thresholds of significance are incomplete and inadequate. The CEQA Guidelines establish a threshold of significance for projects that conflict with plans, policies, and regulations of "a local agency with jurisdiction over the project" that were adopted for the purpose of avoiding or mitigating environmental impacts. (CEQA Guidelines, App. G, § IX(b).) Although the DEIR cites Appendix G as a source of thresholds of significance, this particular threshold is not discussed. Omission of this threshold is inappropriate under CEQA. A number of local agencies have jurisdiction to issue discretionary approvals for the Project (see p. 2-91 (Table 2-13)). Those decisions must be consistent with local general plans. (See Neighborhood Action Group v. County of Calaveras (1984) 156 Cal.App.3d 1176, 1182-86.) The DEIR describes a number of potential conflicts with dozens of local land use policies, most of which were plainly adopted for environmental purposes, and states that "actual determinations of project consistency" will be made by local jurisdictions "during project implementation." (p. 3.2-13.) These conflicts, however, are not merely problems to be addressed "during project implementation" by local agencies, but also potentially significant environmental impacts that must be disclosed, analyzed, and mitigated *by the lead agency* prior to project approval. While some sections of the DEIR explicitly incorporate local standards as thresholds of significance (see e.g., p. 3.6-23 (local tree protection ordinances), p. 3.10-5 (local noise ordinances)), this approach should be applied consistently throughout the DEIR. RCW-19 RCW-20

B. The DEIR Inadequately Analyzes and Mitigates Impacts Related to Aesthetics and Visual Resources

The DEIR does not properly account for either the short-term or long-term visual impacts of the various elements of the Project. Critical analyses and visual representations are missing, making it impossible to evaluate the DEIR's conclusions. (See Oro Fino Gold Mining Corporation v. County of El Dorado, 225 Cal.App.3d 872,885 (1990).) The DEIR also fails to RCW-21

consider the significance of short-term construction-related visual impacts. (See CEQA Guidelines § 15126.2(a).) As a result, this section of the DEIR is not supported by substantial evidence and does not reflect a good-faith effort at full disclosure of it impacts. In these respects, the DEIR violates CEQA.

First, the DEIR does not adequately analyze conflicts with local plans and policies regarding visual resources. The DEIR states that a number of factors, including "conformance with public policies regarding visual quality," guided significance determinations for the Project's visual impacts. (p. 3.3-17.) The DEIR does not explain in detail how these factors were evaluated, however, and generally omits any specific discussion of local scenic policies. RCW-21

Secondly, the DEIR inappropriately discounts potentially significant construction-related visual impacts. The DEIR's discussion of construction-related visual impacts is cursory and conclusory. The document lacks any site-specific analysis of particular construction projects. It also fails to explain its conclusion that all construction-related impacts will be less than significant. Nor does the DEIR explain how or whether the existing level of development at any particular location affects the determination of significance. This lack of analysis and support undermines the document's informational purpose. RCW-22

At best, the DEIR suggests that these impacts are all less than significant because they are all temporary. (p. 3.3-23.) This conclusion is not supported by the information in the DEIR. While all of the construction projects are "temporary," many are expected to last for several years. (See e.g., p. 2-58 (Table 2-8) (estimating four to six years for construction of Alternative 2 project-level improvements at Orinda WTP, and two to three years for construction of the Aqueduct).) **Similarly, pipeline projects through residential neighborhoods, such as the HVPP and pipeline, will take more than a year to complete.** (App. B, at B-23 (Table B-HVPP-2).) Notably, the duration of an impact is not a factor set forth in either the CEQA Guidelines or the DEIR itself for determining the significance of a visual impact. (See CEQA Guidelines, App. G, § I; DEIR, p. 3.3-17.) Indeed, an EIR must "giv[e] due consideration to both the short-term and long-term effects" of a project. (CEQA Guidelines § 15126.2(a).) The DEIR thus fails to support its conclusion that any of these impacts will be less than significant. RCW-23

The DEIR also does not reveal whether night lighting would be required during dewatering phases at other construction sites (specifically the clearwells and backwash basins at the Orinda WTP and the HVPP and pipeline near Lauterwasser Creek). The DEIR should be revised to include an analysis of these construction impacts and appropriate mitigation measures. RCW-24

Third, the DEIR does not adequately disclose or mitigate long-term visual impacts. In general, the DEIR's visual impacts analysis is incomplete and misleading. Visual simulations are either omitted entirely from the DEIR or not representative of how the facilities will actually RCW-25

appear to the public. Due to these omissions and misrepresentations, Orinda residents who have examined this portion of the DEIR have come away with the opinion that the document is deliberately misleading. We strongly suggest that EBMUD attempt to remedy this situation by providing additional information regarding visual impacts, including complete and detailed vegetation plans, tree markings, and story poles for all physical structures (including tanks, fences, and other improvements). RCW-25

As to the HVPP and pipeline aspects of the Project, the DEIR's visual simulations are incomplete and potentially misleading. Although the view of the proposed pumping station site (at the Wooldridge's Property) from Lombardy Lane is certainly important, the maps and photographs of the area also show a residence immediately adjacent to the site; it appears that the new pumping plant would be located within 50 feet of the back yard and swimming pool at this residence. (Fig. 3.3-HVPP-l; Map C-HVPP-l.) Map C-HVPP-l shows that existing vegetation between the pumping plant and the residence will be removed, and the landscaping plan (Figure 3.3-HVPP-3) shows no replacement vegetation in this location. All of this information contradicts the DEIR's conclusion that existing trees and future landscaping will screen views from adjacent residences. (p. 3.3-42.) Again, the DEIR's conclusions regarding the significance of this impact are unsupported. RCW-26

C. The DEIR Inadequately Discloses, Analyzes, and Mitigates Impacts Related to Hydrology and Water Quality

First, the DEIR's reliance on existing permits, conditions, and regulations is inadequate to ensure that impacts will be less than significant. The DEIR relies extensively on existing federal and state regulations and permits in concluding that water quality impacts will be less than significant. Some of these permits pertain to construction at the various facilities, while others pertain to post-construction operations. In several instances, however, it is not clear from either the DEIR or the permits themselves that promises of compliance are sufficient to avoid or lessen significant impacts. RCW-27

For example, the DEIR relies on the Regionwide General NPDES Permit for Discharges from Surface Water Treatment Facilities for Potable Supply ("Regionwide General Permit") in concluding that impacts from chloraminated discharges and changes in impervious surfaces will be less than significant. (p. 3.5-38, 3.5-42.) This permit will expire in August of 2008, prior to the start of construction at several locations (including the Orinda WTP). As a result, it is impossible to evaluate the conditions under which a majority of the Project will be constructed. RCW-28

Secondly, the DEIR's proposed mitigation measures are inadequate to support its conclusions. Regarding erosion from construction, for example, the DEIR defers development of site-specific plans for preventing discharges from construction in or near a number of watercourses throughout the Project area. There appear to be special risks of water pollution at RCW-29

the Orinda WTP, which is immediately adjacent to San Pablo Creek, the HVPP, at the confluence of Lauterwasser Creek and a seasonal drainage, and the HVPP pipeline, which crosses Lauterwasser Creek and three other drainages. The HVPP and pipeline sites lack a stormwater system, and construction will occur roughly 50 feet uphill from the nearest watercourse. RCW-29

The DEIR discusses these potential discharges in only the most general terms, and contains little information regarding particular risks at most locations. Nor does the DEIR propose specific mitigation measures, or even quantifiable performance standards, for the Project locations. Instead, the DEIR merely promises compliance with Section 01125 of the EBMUD construction specifications, which in turn requires preparation of a number of water quality control plans and compliance with applicable regulations. Because the Project's impacts are not disclosed in particular terms, the feasibility or effectiveness of mitigation measures to lessen those impacts cannot be assessed. Mitigation cannot be deferred in this manner. RCW-30

The DEIR also fails to clarify whether Section 01125 is offered as a mitigation measure. On the one hand, the DEIR seems to rely on Section 01125 in concluding that construction-related impacts, although potentially significant, will be less than significant after mitigation. (See. e.g., p. 3.5-24 (Table 3.5-2); p. 3.5-25.) On the other hand, compliance with Section 01125 - and with the numerous other plans and provisions seemingly encapsulated within that section, such as Stormwater Pollution Prevention Plans and Best Management Practices - is not mentioned in either of the mitigation measures proposed for Impact 3.5-1. (pp. S-36, 3.5-31.) If the DEIR is relying on Section 01125 in concluding that impacts can be avoided or mitigated to insignificance, it must identify Section 01125 as a mitigation measure, establish quantifiable and enforceable performance standards, and include them in a mitigation monitoring plan. RCW-31

Third, the DEIR provides an inadequate basis for issuance of necessary permits by responsible agencies. The HVPP pipeline will require County encroachment permits for creek crossings, which in turn will require evidence of compliance with California Department of Fish & Game and Army Corps of Engineers regulations. The Department of Fish & Game, as a responsible agency, will need to rely on the DEIR in making its own determination regarding issuance of a streambed alteration agreement. The information presented concerning the location and design of stream crossings, however, is insufficient for the Department's purposes. (See Fish & Game Code §§ 1602, 1603.) Nor may CEQA compliance be deferred until the Department actually receives an application for a streambed alteration agreement. CEQA requires analysis of the whole of the action, and does not permit such "piecemeal" analysis of environmental impacts. RCW-32

Fourth, the DEIR does not adequately address water quality degradation from dewatering discharges. Relying solely on compliance with Section 01125 and other applicable regulations, the DEIR impermissibly concludes that this impact will be less than significant (and that no mitigation is required) at all locations. (p. 3.5-24 (Table 3.5-2.).) Yet the DEIR also states that discharges from the Orinda WTP and the Aqueduct could "adversely affect water quality" in San Pablo, Lauterwasser, and Lafayette Creeks, implying that this would be a significant impact without mitigation. (p. 3.5-32, 3.5-33.) This contradictory treatment results from the DEIR's improper deferral of analysis of both impacts and mitigation measures. For example, the detailed hydrologic study necessary to determine the volume and quality of water pumped during Aqueduct construction will not be performed until after Project approval. (p. 2-64.) The DEIR must analyze and disclose these impacts, and prepare enforceable, specific mitigation measures. RCW-33

The DEIR also fails to analyze the potential for discharges from dewatering at other locations. Dewatering of subsurface soil is among the mitigation measures proposed to address the potential for soil liquefaction, and dewatering may also be necessary where pipelines cross creeks. (pp. 3.4-32, 3.5-34.) In this respect the DEIR fails to analyze the secondary environmental impacts of mitigation measures as required by CEQA. (CEQA Guidelines § 15126.4(a)(l)(D).) RCW-34

D. The DEIR Inadequately Discloses, Analyzes, and Mitigates Impacts on Biological Resources

First, the DEIR inadequately discloses impacts and improperly defers development of mitigation measures as to the Project's biological impacts. The DEIR inadequately describes mitigation measures to address degradation of streams, wetlands, and riparian areas. For example, trenching across streams and associated removal of riparian vegetation "would result in significant effects." (p. 3.6-34.) The mitigation measure proposed to reduce this impact, however, is vague. It is not clear that "confining activities to areas above or below the stream crossing," or using jack-and-bore construction "where feasible," will reduce these impacts. (p. 3.6-39.) The DEIR must fully disclose impacts, and develop adequate mitigation, at particular stream crossings along each alignment. RCW-35

By the same token, the DEIR impermissibly defers preparation of a complete wetland delineation until some later date, and then only if impacts to "potentially jurisdictional features" cannot be avoided or minimized. (p. 3.6-40.) A number of Project facilities will be constructed either adjacent to or across streams and riparian areas; it is therefore highly unlikely that all impacts to these jurisdictional features can be avoided or minimized. The DEIR promises that required permits and agreements will be obtained from the Army Corps of Engineers and the Department of Fish and Game; as previously discussed, however, the document does not describe jurisdictional impacts in enough detail to enable informed decision-making by responsible agencies. A wetland delineation, showing the location of RCW-36

jurisdictional features and detailing impacts, should have been prepared as part of the DEIR. RCW-36

Secondly, the DEIR also fails to analyze secondary environmental impacts of proposed mitigation. Measure 3.6-2d recommends placing energy dissipation devices "such as riprap" in creeks to minimize erosion. Although energy dissipation is necessary for overflow discharges, riprapping a creekbed can adversely affect instream habitat for aquatic species by removing natural stream structure and altering flow regimes. This impact should have been disclosed in the DEIR. RCW-37

Third, the DEIR contains inadequate information about the life cycles and breeding patterns of sensitive wildlife species, rendering evaluation of proposed mitigation measures difficult. The DEIR's general discussion of bat species, for example, provides insufficient background for evaluation of the specific buffer zones and seasonal limitations proposed in Measure 3.6-5. Similarly, the DEIR contains no information on the feasibility or potential success of wood rat nest relocation, nor does it reveal how successful relocation of California yellow-legged frog nests might be. The DEIR also repeatedly assures that a good deal of construction disturbance will be "temporary and primarily linear," although the document also admits that direct mortality of some species will occur. (p. 3.6-56.) It is thus clear that construction disturbance will result in direct mortality; the "linear" orientation and "temporary" duration of construction activities do not reduce the significance of this impact. In order to support findings regarding significant impacts to these sensitive species, both before and after mitigation, the DEIR must present substantially more information. RCW-38

Finally, the DEIR also calls for the removal of protected oak trees on the Wooldridge Property, if it is used for the HVPP. Some of these trees are more than 150 years old and contribute to the air quality and the aesthetics of the neighborhood. If the Wooldridge Property is used not only for the HVPP itself, but also for staging of heavy construction equipment and vehicles, the damage to protected trees will likely be substantial. RCW-39

E. The DEIR Inadequately Discloses and Analyzes Impacts and Mitigation Measures Related to Traffic and Circulation

Like the City of Orinda, the Wooldridge's and their neighbors are especially concerned about the traffic and circulation impacts resulting from simultaneous and overlapping construction of various Project elements within the City limits, and along Lombardy Lane in particular. The DEIR recognizes that encroachment permits from the City will be required for various portions of the Project, including the HVPP and pipeline. (p. 2-91 (Table 2-13).) An encroachment permit requires specific findings that an encroachment is necessary and will not have an adverse effect on the public interest, safety, health, welfare, other property, or the environment in general. (Orinda Mun. Code § 12.08.040(C)(1), (2).) As discussed herein, the DEIR does not clearly establish that these encroachments are necessary. Moreover, the DEIR fails to disclose or analyze traffic and circulation impacts in sufficient detail and routinely RCW-40

downplays the significance of road closures and detours associated with pipeline projects. As a result, the DEIR not only fails to meet the requirements of CEQA, but also provides an insufficient basis for granting the apparently required encroachment permits. RCW-40

The DEIR fails to substantiate its assumptions regarding vehicle capacity of area roads. All two-lane roads are assumed to be able to carry 15,000 vehicles per day, and all four-lane roads are presumed capable of carrying 25,000-30,000 vehicles per day. The DEIR provides no specific source for these assumptions, which seem especially dubious when applied to the narrow residential streets most adversely affected by roadway trenching activities. The DEIR lists only four references, two of which are web sites containing bus schedules, and the other two of which are Caltrans web sites containing traffic counts for *state highways*. (p. 3.8-26.) A prominent notice on the Caltrans site states that "We do not collect traffic count information on locally maintained streets." (Traffic and Vehicle Data Systems Unit Home, at http://www.dot.ca.govlhqltraffops/saferesr/trafdatalindex.htm.) The DEIR must substantiate its assumptions that local streets are not already beyond their capacity before reaching any conclusion regarding the significance of traffic impacts or the effectiveness of mitigation. RCW-41

The DEIR also omits any project-specific analysis of construction-related traffic impacts at several sites in Orinda. Although a few "examples" of "noticeable" project-related traffic increases are provided, the DEIR fails to discuss impacts at the Orinda WTP, HVPP and pipeline, and Sunnyside sites. (p. 3.8-13.) RCW-42

The DEIR also fails to recognize that traffic conditions do not remain static. Construction of various Project elements will continue for many years into the future, yet the DEIR contains no projection of future traffic conditions or roadway capacity. This is a serious omission, one that could require the production of substantial additional data and recirculation of the DEIR. RCW-43

Most importantly, the DEIR also fails to address fully the impacts of pipeline projects along residential roads. For example, project construction traffic for the HVPP pipeline would use narrow roads through residential neighborhoods, and residents will be required to follow lengthy and circuitous detour routes during daytime hours for as long as two years. (p. 3.8-21.) The DEIR does not contain any information about current capacities, traffic counts, or impacts resulting from either construction or detour traffic on these predominantly residential roads. This information is sufficiently substantial to require recirculation of the DEIR. RCW-44

Additionally, the mitigation for these impacts is entirely deferred and improperly delegated; under Measure 3.8-1, the *contractor* will be responsible for formulating traffic management plans sufficient to reduce impacts to insignificance. (pp. 3.8-13 - 3.8-14.) Although the contractor must "submit" these plans to the "agencies having jurisdiction over the RCW-45

affected roads," it is not clear that those agencies will have any approval authority. Nor does it appear that EBMUD, as lead agency, will ever evaluate the traffic plans to ensure that they contain measures sufficient to address site-specific concerns. This is an improper deferral and delegation of the lead agency's responsibility and authority to mitigate significant impacts. Furthermore, this deficiency infects the entire traffic section of the DEIR, because all but one of the other traffic mitigation measures simply require implementation of Measure 3.8-1. RCW-45

Also, there are "line of sight" issues affecting traffic safety along Lombardy Lane at the proposed HVPP site on the Wooldridge Property. This site is located on a partially blind curve that contributes to safety concerns, which are not discussed or analyzed in the DEIR. RCW-46

Finally, the DEIR also relies on vague and deferred "internal coordination" measures in addressing the collective fire risk posed by a number of projects in Orinda, despite the potential of serious problems stemming from reduced emergency vehicle access. The City and Lombardy Lane residents are alarmed by the potential for catastrophic fire caused by simultaneous construction projects in areas of high wildland fire risk, as well as delays in emergency vehicle response caused by construction traffic and road closures. Local fire officials from the Moraga Orinda Fire District and Contra Costa County need to be involved in this coordination process from the beginning in order to respond effectively to emergencies and protect life and property. RCW-47

F. The DEIR Inadequately Analyzes and Mitigates Significant Noise Impacts

First, the DEIR uses improper thresholds of significance regarding noise impacts. By focusing narrowly on speech interference and local noise ordinances, **the DEIR's thresholds of significance for noise do not accurately reveal noise impacts**. Under CEQA, a substantial increase in ambient noise levels in the project vicinity "above levels existing without the project" is a significant impact, whether that increase is permanent, temporary, or periodic. (CEQA Guidelines, App. G, § XI(c), (d).) Under CEQA, therefore, a substantial increase in noise at a normally quiet location may still be significant, even if it is not so loud as to make conversation impossible or violate noise ordinances. The DEIR's omission of this threshold underestimates some of the Project's more significant impacts. RCW-48

The DEIR's use of the Leq measurement - which averages acoustical energy over a 24-hour period (p. 3.10-1) - in evaluating the significance of noise from haul trucks is also inappropriate. (p. 3.10-35.) Haul truck noise is experienced as a periodic impact, not as a constant impact, and is therefore **best evaluated by comparison of each event with prevailing ambient noise levels rather than an Leq level that tends to flatten out periodic events.** RCW-49

Secondly, the DEIR fails to justify its conclusions regarding significance of noise impacts. The DEIR's noise analysis suffers from a number of significant omissions and possible errors, especially concerning the effectiveness of mitigation measures at various locations in Orinda. In particular, the DEIR's analyses of noise impacts at the HVPP and along the pipeline route are of significant concern to both the City and the Lombardy Lane residents. The proposed HVPP site at the Wooldridge Property is surrounded by residences and other sensitive receptors, some as close as 50 feet. (p. 3.10-25.) According to Table 3.10-6, noise at the HVPP construction site, even after controls are applied, will exceed the 70-dbA exterior speech interference threshold by between five and 11 dbA. (DEIR at 3.10-14, 3.10-25.) RCW-50

The DEIR concludes that a noise barrier would be "adequate to reduce construction noise to a less-than-significant level" (p. 3.10-25), **but this conclusion is doubtful for at least two reasons.** First, depending on feasible locations and designs for noise barriers, this measure may not reduce noise levels below the speech interference threshold. The DEIR does not provide enough information about barrier placement and design to support its conclusion. Second, the DEIR uses the wrong threshold of significance. Ambient daytime noise levels in the vicinity of the pumping plant average 54 dbA on weekends. (p. 3.10-6 (Table 3.10-2).) Even if a noise barrier fitted with sound-absorbing material were somehow able to achieve a 15 dbA reduction at the site, and allowing for a 1-3 dbA increase in ambient noise levels on weekdays, construction noise at the site would still reach 66 dbA-roughly *double* current average ambient levels. (p. 3.10-1 (10-dbA increase in continuous noise is perceived as a doubling of loudness).) Therefore, even under the most optimistic noise mitigation scenario, the project would still cause a "substantial temporary or periodic increase in ambient noise levels in the project vicinity," and would thus remain significant under the CEQA Guidelines. (CEQA Guidelines, App. G, § XI(d).) RCW-51

Noise impacts along the HVPP pipeline route, and the pipeline portion of the Aqueduct, would also remain highly significant even after application of all proposed mitigation measures. Again, sensitive receptors are located within 25 feet of the Aqueduct pipeline and within 50 feet of the HVPP pipeline; noise levels at both locations .after controls are applied are expected to exceed the 70-dbA speech interference threshold. (p. 3.10-12 (Table 3.10-5).) The DEIR incorrectly concludes that these impacts will be mitigated to a less-than-significant level at both locations. (p. 3.10-23, 3.10-25.) Such conclusions cannot be sustained by the facts. According to the DEIR, Measure 3.10-1 b, which adjusts construction hours for consistency with the Orinda noise ordinance, will adequately mitigate impacts at both locations. (Id.) This measure, however, does nothing to reduce the actual noise of construction below the speech interference threshold of significance. Moreover, sound barriers are *not* proposed as mitigation measures for pipeline projects. (p. 3.10-33 (Measure 3.10-1e).) In addition, jack-and-bore construction - which involves pile driving - may be used at stream crossings along pipeline projects to avoid aquatic impacts. (p. 3.6-34, 3.10-30.) Pile driving produces much more noise than any of the impact activities analyzed for the pipeline routes. (Compare p. 3.10-10 (Table 3.10-4) with p. 3.10-12 (Table 3.10-5).) Therefore, the noise level along both pipeline routes will exceed not only RCW-52

ambient noise levels without the project, but also the much higher speech interference threshold used by the DEIR. Accordingly, the DEIR's conclusion that impacts will be mitigated to a less-than-significant level is without foundation. RCW-52

Finally, **operational noise impacts** at all of the pumping plant sites are of considerable concern to Orinda residents and in particular to the Wooldridge's and their neighbors. The DEIR concludes that noise from transformers and pumps at the pumping plant sites, including the HVPP site, will be less than significant, but reaches this conclusion on the basis of general promises to locate vents so as to direct noise away from sensitive receptors. (p. 3.10-45 - 3.10-48.) **All of these pumping plants are located in residential areas and are surrounded by sensitive receptors.** Incorporation of measurable decibel limits at each of these receptors, and adoption of a monitoring program to ensure that the limitations of Orinda's noise ordinance will not be exceeded, are necessary to support any conclusion that operational noise impacts will be less than significant. RCW-53

III. The DEIR's Alternatives Analysis is Flawed and Is Insufficient to Support a Reasoned Choice

Every EIR must describe a range of alternatives to the proposed project and its location that would feasibly attain the project's basic objectives while avoiding or substantially lessening the project's significant impacts. CEQA § 21100(b)(4); CEQA Guidelines § 15126(d). A proper analysis of alternatives is essential for EBMUD to comply with CEQA's mandate that significant environmental damage be avoided or substantially lessened where feasible. CEQA § 21002; CEQA Guidelines §§ 15002(a)(3), 15021(a)(2), 15126(d); Citizens for Quality Growth v. City of Mount Shasta, 198 Cal. App. 3d 433, 443-45 (1988). As stated in Laurel Heights Improvement Association v. Regents of University of California, "[w]ithout meaningful analysis of alternatives in the DEIR, neither the courts nor the public can fulfill their proper roles in the CEQA process .... [Courts will not] countenance a result that would require blind trust by the public, especially in light of CEQA's fundamental goal that the public be fully informed as to the consequences of action by their public officials." 47 Cal. 3d 376, 404 (1988). The DEIR's discussion of alternatives in the present case fails to live up to these standards. RCW-54

First, the DEIR fails to consider a sufficient range of alternatives that would avoid significant impacts relating to the HVPP and pipeline. As noted above, the DEIR's discussion of the purported "need" for the HVPP and pipeline does not provide sufficient information to determine whether the HVPP and pipeline can be eliminated or redesigned to address the impacts that would likely be caused. RCW-55

Secondly, even if the HVPP and pipeline were truly needed, the DEIR cannot logically have concluded that the Wooldridge Property is the preferred location for the HVPP, when the DEIR's own data shows the opposite. In this regard, the text of the DEIR, at page 6-35, is just plain wrong. It states that "overall, although some impacts RCW-56

(e.g., impacts to protected trees) would be less under [the Miner Road] alternative, the Happy Valley Pumping Plant Alternative [at Miner Road] is not considered environmentally superior to the proposed project [e.g., using the Wooldridge Property as the pumping station site]." This conclusion is completely contradicted by Table 6-5, which outlines the differences in the two sites' impacts. Table 6-5 shows that for 9 categories of impacts, using the Miner Road site would cause less severe impacts. By contrast, impacts at the Miner Road site are only "better" than the Wooldridge Property under 5 categories of impacts. Thus, the DEIR's own data shows the Miner Road alternative is environmentally superior, compared to using the Wooldridge Property. RCW-56

Given the above, the Wooldridge's do not fully agree with the City of Orinda's comments, to the effect that substantially similar impacts would be created by locating the HVPP at either the Wooldridge Property or the alternative Miner Road site owned by the Urban family. While the alternative site (along Miner Road) for the HVPP is still close to residences and likely to cause some significant traffic and noise impacts (p. 6-33, 6-35), using the Miner Road site would require a significantly shorter and smaller diameter pipeline, is located twice as far from the nearest residence (100 feet rather than 50 feet), would reduce impacts to protected trees, and would cause less danger in terms of "line of site" traffic safety concerns. Again, the data in Table 6-5 shows that the Miner Road site should be deemed environmentally superior. RCW-57

The DEIR actually downplays the details regarding why the Miner Road site would be superior. As to traffic, for example, utilizing the Miner Road site would lessen impacts by virtue of its closer proximity along truck routes and "lesser penetration" within the Sleepy Hollow neighborhood. During construction of the HVPP, whichever site is chosen may serve as a corporate/construction site to park earth-moving and other large vehicles and store equipment and materials. Using the Miner Road site would shorten the distance trucks would have to travel from Camino Pablo and thereby lessen the traffic. Also, the Miner Road property can be accessed via Miner Road and Camino Sobrante. RCW-58

By contrast, to reach the Wooldridge Property utilizing Miner road during construction, trucks and equipment for the Project would have to traverse an additional distance, possibly one mile, past forty-plus homes that front these streets. That section of road services two arterial roads leading to Sleepy Hollow School and the Sleepy Hollow Swim & Tennis Club, which are both heavily used by parents transporting children to the school and recreational facility. The DEIR contains no discussion of such substantial disruption to the fabric of the Sleepy Hollow neighborhood. RCW-59

Furthermore, from "cost of acquisition" and "construction cost" perspectives, the Miner Road site is manifestly preferable to the Wooldridge Property. As noted above, the Wooldridge's intend to build a residence on their land, and oppose any acquisition of any portion of their property. The Wooldridge Property is a large, buildable parcel, and its owners, nearby neighbors, and residents in the Sleepy Hollow community oppose siting the HVPP there. The RCW-60

Wooldridge's are unwilling to sell any portion of the property to EBMUD voluntarily. If EBMUD was forced to take the property via eminent domain, the owners would be entitled to just compensation, and litigation related to the taking of the property via eminent domain or related to an environmental dispute could continue for many years, thus delaying the start of the proposed Project. Also, taking any portion of the site and locating a loud, visually intrusive pumping station on it, would cause severe "severance damages" to the remainder, causing a "part take" to be essentially a "full take", in terms of acquisition costs. RCW-60

By contrast, the acquisition of the Miner Road property would be much less costly for EBMUD for many reasons, but the key reason being that the owners have no objection to the property's acquisition by EBMUD (see attached e-mail from Mr. Urban to EMBUD, dated August 8, 2006), and although they would be entitled to full value for the property, the price resulting from a voluntarily negotiated sale of part of their property would be much less costly than a fully buildable site acquired through eminent domain and which could result in extensive litigation. RCW-61

As to construction costs, we understand that there would be roughly 450+/- fewer feet of pipeline needed if the Miner Road site is used, meaning 450 fewer feet of ripped up/blocked roadway. Also, if the Miner Road site is used, the diameter of much of the pipeline would be 12" diameter instead of 16" diameter along most of the route, as compared to the required 16" diameter pipeline if the Wooldridge Property were used, as this portion of the Project brings water from a lower pressure/elevation zone up to a higher pressure/elevation zone. As shown in maps C-HVPP-1, -2, and -3, the pipeline would start at the downhill end, around Oak Arbor Road, and bring lower pressure zone water located in a pipe at Oak Arbor Road, up through Miner Road and Lombardy Lane to the corner of Lombardy and Van Ripper, where there is an existing 12" pipe that is the "beginning" of the upper pressure zone area. That location - the corner of Van Ripper/Lombardy Lane - is where the pipeline would end if the Miner Road site were used. That is roughly 450 feet shorter than if it has to go past Van Ripper along Lombardy to the Wooldridge Property. RCW-62

As to pipe diameter, we understand that water in the lower pressure zone is typically carried in a 16" line, and that when it reaches the pump station, the water's pressure is increased and carried in the upper pressure zone in a 12" line. So, where the pump station is located is where the "incoming" 16" line is changed to an "outgoing" 12" line. If the Miner Road site is where the pump station is located, the incoming section of pipe carrying the lower pressure zone water (16") would end at the Miner Road pump station, and would then be put into an outgoing 12" line to travel up the balance of its route to the Lombardy/Van Ripper corner where it would tie into the existing 12" line. Conversely, if the Wooldridge Property were used for the pump station, the lower pressure water in the larger 16" line must go all the way to the Wooldridge Property (roughly 400-450 feet beyond the Van Ripper/Lombardy corner), with only a short section of 12" higher pressure zone water pipe needed as the outgoing line (from the pump station) to tie into the existing 12" line within Lombardy Lane. This diameter issue suggests a RCW-63

lower cost, in terms of construction, if a smaller diameter pipe is needed under the Miner Road pump station scenario. RCW-63

In sum, CEQA requires an EIR to consider alternatives that will avoid or substantially lessen such impacts. By considering the Miner Road site as an alternative to the HVPP, the DEIR makes some headway, but we agree with the City's comments, to the extent that the DEIR fails to consider a reasonable range of alternatives relating the HVPP and pipeline, that would eliminate more impacts, which remain even if the Miner Road site were used. RCW-64 In a memorandum entitled "California Environmental Quality Act Contracts" from EBMUD staff to the EBMUD Board of Directors, dated June 23, 2005, in which staff explained the need to hire specialized consultants, at an ultimate cost of almost $2 million, for the Project's CEQA work, staff stated that "CEQA is a complex law with a simple purpose: to assure that decision-makers understand and account for the environmental consequences of a project. *CEQA prohibits the approval of projects if there are feasible alternatives or mitigation measures that would substantially lessen significant environmental effects.* Thus, a project with significant environmental impacts may be approved if the local agency finds that all alternatives or mitigation measures are infeasible and discloses its reasoning." (Emphasis added.) Clearly, there is insufficient discussion in the DEIR regarding feasible alternatives and mitigation measures. RCW-65

Notably, in another staff memo of the same date, entitled "Water Treatment and Transmission Master Plan Update", staff discussed many aspects of the proposed Project, but there is no mention in the memo's text regarding the HVPP and pipeline. It is shown on the diagram of proposed projects, but is not discussed in the memo's discussion of "Pressure Zone Projects", nor in the listing of "significant pressure zone projects". It appears the HVPP and pipeline portion of the Project is more akin to a "minor" pressure zone component, perhaps even an optional one. RCW-66

In sum, we strongly urge EBMUD to rethink and explain the true need for the HVPP and pipeline, given the severe impacts to the Lombardy Lane neighborhood. *If* and *only if* the facilities are *truly* required, and if they *cannot* be redesigned to avoid either of the two proposed sites for a pumping station, *then the Miner Road site clearly should be adopted rather than the Wooldridge Property*, after CEQA requirements have been fully satisfied. RCW-67

IV. The DEIR Must Be Revised and Recirculated

For the foregoing reasons, the DEIR does not comply with CEQA. Due to the many omissions outlined herein, preparation of an adequate document would require significant new information. This would necessitate recirculation of the DEIR. (CEQA Guidelines § 15088.5(a).) RCW-68

If you have any questions about any of the foregoing, please do not hesitate to discuss them with me at any time. RCW-68

Very truly yours,

MORGAN MILLER BLAIR

DANIEL A. MULLER

Attachments RCW-69

Baker, Sue

From: Baker, Sue on behalf of Water Treatment Transmission Improvements Program
Sent: Wednesday, August 16, 2006 2:23 PM
To: 'wttip@esassoc.com'; Kirkpatrick, William
Cc: Zavadil, Judith; McGowan, Timothy; Harlow, Nora
Subject: Comment WTTIP DEIR - Ted Urban
Follow Up Flag: Follow up
Flag Status: Completed

Thank you,
Sue Baker x1104

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rom: Ted Urban [mailto:lidateds@comcast.net]
ent: Tuesday, August 08, 2006 5:29 PM
o: Water Treatment Transmission Improvements Program; wayne@canterburyraub.com
c: Lida and Ted Urban; Aundra Urban
ubject: Fw: EBMUD

o Judith Zavadil
rom Ted Urban
ugust 8, 2006

ear Judith,

have forwarded you a copy of Wayne Canterbury's letter so that you are aware that I am familiar with his representations
:garding our property on Miner Road. I was approached by Nora Harlow several months ago who made me aware that our
roperty was being considered as an alternative site for a pump station for EBMUD. She asked me if I would consider the sale of
portion of our propertyif approached by EBMUD for a pump station and sent me a CD of the EIR. I indicated that I would give it
ome thought and when she called back several weeks later to indicate that there might be some objection from residents
djoining the proposed Lombardy site I told her that we would be receptive to a sale at fair value. She then said that she would be
ieeting with engineering on the site and asked if I could attend but I was not available. I haven't heard back from her at this point.

he representation made by Wayne Canterbury of our interest is accurate to my knowledge and his assessment of the pros and
ons of the two properties are also accurate. I'm not sure who is in charge of this decision at EBMUD but if you, Nora or someone
se in property acquisition needs to contact me on this matter you can reach me at (925)254-6092,

espectfully,

ed Urban
--- Original Message -----
rom: Wayne Canterbury
o: Ted Urban
c: Robert Wooldridge
ent: Tuesday, August 08, 2006 5:02 PM
ubject: EBMUD

ed:

/16/2006

Enclosed is my letter to EBMUD. The lead engineer on the project is Judith Zavadil. Her email address is wttip@ebmud.com . When I spoke to her today on the subject, she seemed to hold the notion that you were not inclined to sell, but that Bob Wooldridge, owner of the Lombardy lot, is. I replied that I believed the opposite was true in both respects. Any effort that you and Bob can make to set the record straight might be helpful.

Best regards,
Wayne

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East Bay Municipal Utility District
c/o Judy Zavadil, Senior Project Manager
P.O. Box 24055, MS701
Oakland, CA 94623-1055

Re: Happy Valley Pumping Plant
Water Treatment and Transmission Improvement Project

This letter is written in response to EBMUD's request to comment on the draft EIR for the Water Treatment and Transmission Improvement Project.

My wife, Jo Alice, and I object to the Happy Valley Pumping Plant component of the project insofar as it calls for the installation of a pumping plant on Lombardy Lane near Van Ripper Road. Our home adjoins the proposed site to the west. Two of our bedrooms are oriented near the boundary line.

We have read the draft EIR and considered the elements of the plan as you kindly explained them at the site visit you attended earlier this month. We understand EBMUD's explanation for the need to upgrade service in the Happy Valley area, but believe that the Lombardy site is unsuitable for the pumping plant.

Fortunately, the alternative site for the plant identified by EBMUD on Miner Road at Camino Sobrante offers a plainly better choice in virtually all respects. The parcel is owned by the Ted Urban family. I have spoken to Ted on the matter and he informed me that he would agree to sell the property to EBMUD.

Lombardy Site

The Lombardy property is owned by Bob and Carlotta Wooldridge. It comprises almost two acres and is one of the choicest buildable lots in Orinda. It is densely covered with natural vegetation and populated by several ancient oak trees. Two creeks converge at its southern end. The immediate neighborhood is uniquely quiet, particularly at night.

Miner Road Site

The Miner Road site is an open grassy field. It is the southern part of a parcel divided by a steeply banked creek and heavy foliage. A home is situated on the northern

side. The site cannot be subdivided or easily put to any use that would serve the residence. The two houses flanking the property are sited a considerable distance from the lot. Their garages, drives, and walls and fences separate the lot from their living areas.

Proposed Pumping Plant

The pumping plant will consist of two industrial pumps and a large electric transformer *that will operate at night.* The pumps would be housed in a structure approximately 60 feet by 40 feet in size. A drive and parking area would surround the facility. During the estimated 2-year construction stage of the project, the site would serve as a corporate yard and used to park earth-moving and other large vehicles and store equipment and materials.

Summary of Objections and Reason for Selecting The Miner Road Site

1. Noise

The character of the Lombardy Lane area is defined by its tranquility, particularly during the late night and early morning hours. The EIR acknowledges that substantial noise would be emitted by the pump and the transformer. It does not comment on the cumulative effect of the two noises, one of which would likely be a hum and the other a whine. The proposed siting of the pumps is within feet of the bedroom of George and Perry Linton, the neighbors to the immediate east of the proposed site.

The use of the Miner Road site, by contrast, would have little noise impact on the surrounding community, as the two adjacent houses buffered from the pump and transformer sounds by the placement of their garages.

2. Traffic and Safety

In order to reach the Lombardy Lane site from Miner Road, trucks and equipment would have to travel the additional one-mile distance past more than 40 homes fronting the street. That stretch of road services the two arterial roads leading to Sleepy Hollow School and the Sleepy Hollow Swim & Tennis Club, both of which are heavily used by parents transporting children to the facilities. The Lombardy Lane site, itself, is located on a partially blind curve that presents additional safety concerns.

Use of the Miner Road property would shorten the distance that trucks and equipment would travel from Camino Pablo and have less impact on school and swim club traffic. Additionally, it can be accessed by both Miner Road and Camino Sobrante.

3. Trees

The EBMUD plan for Lombardy Lane calls for the removal of at least two heritage oaks. These trees are more than 150 years of age and contribute to the beauty of the neighborhood. No trees of any note would have to be removed at the Miner Road site. Additional trees and landscaping could be installed at the site following construction.

4. Acquisition Cost

The Lombardy Lane site is a large, premier, buildable, parcel. Its owners are unwilling to sell it to EBMUD voluntarily. They would be entitled to the full value in the event EBMUD forced the sale through use of its eminent domain powers. An environmental or acquisition dispute could be litigated for years.

The Miner Road parcel is considerably smaller and has limited use. While the Urbans would be entitled to full value, there is no question that the price resulting from a voluntarily negotiated sale would be much more favorable to EBMUD and its rate payers.

In summary, use of the Lombardy Lane site for the pumping plant is inappropriate and strongly opposed by the owners and residents in the Sleepy Hollow community. The Miner Road property is in almost every respect uniquely suitable for the proposed use and its owners do not object to its acquisition. The EIR itself identifies the Miner Road site as a viable alternative. Given these circumstances, we urge EBMUD to adopt the alternative site for installation of the Happy Valley pumping plant.

Thank you for your consideration.

Very truly yours,

Wayne Canterbury

Jo Alice Canterbury

cc: EBMUD Board of Directors
Mayor and Council Members
City of Orinda
Emmanuel Ursu,
Planning Department, City of Orinda

Baker, Sue

From: Zavadil, Judith
Sent: Monday, August 14, 2006 10:15 AM
To: Water Treatment Transmission Improvements Program; Kirkpatrick, William
Subject: FW: Please see attached letter

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rom: Wayne Canterbury [mailto:wayne@canterburyraub.com]
ent: Monday, August 14, 2006 8:08 AM
o: Zavadil, Judith
c: Emmanuel Ursu; aworth@ci.orinda.ca.us; vsmith@ci.orinda.ca.us; Bill Judge; Laura Abrams; Steve Glazer
ubject: Please see attached letter

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East Bay Municipal Utility District
c/o Judy Zavadil, Senior Project Manager
P.O. Box 24055, MS701
Oakland, CA 94623-1055

Re: Happy Valley Pumping Plant
Water Treatment and Transmission Improvement Project

Dear Ms. Zavadil,

This confirms our conversation following my July 29 letter objecting to the use of the Lombardy Lane site for installation of a the Happy Valley pumping plant, in which you noted that the size of the proposed pump enclosure is 30 x 40 feet, not the 40 x 60 that I had understood. This information is encouraging, as the smaller footprint would render the plan all the more compatible with the *Miner Road* location.

Very truly yours,

WS Canterbury

Wayne S. Canterbury

cc: EBMUD Board of Directors
Mayor and Council Members
City of Orinda
Emmanuel Ursu,
Planning Department, City of Orinda

ROBERT AND CLARITA WOOLDRIDGE

1072 CAMINO VERDE CIR.
WALNUT CREEK, CA 94597
925-519-7979
REW@HERSHEYSMILL.COM

East Bay Municipal Utility District
c/o Judy Zavadil, Senior Project Manager
P.O. Box 24055, MS701
Oakland, CA 94623-1055

Re: Happy Valley Pumping Plant
Water Treatment and Transmission Improvement Project

This letter is written in response to EBMUD's request to comment on the draft EIR for the Water Treatment and Transmission Improvement Project.

We have owned the site, on which EBMUD proposes to locate the Happy Valley Pumping Plant, for 30 years. My wife and I lived on the site next door at 164 Lombardy Lane until 1982 at which time our work required us to relocate to the East Coast. We retained the site at 162 Lombardy, with the intention to build our home upon return to California. We have now returned and intend to have a home constructed for our home, during the next year. As you are probably aware, a level building site in the Sleepy Hollow area of Orinda on which to build our home is virtually non existent. In addition to the adverse consequence of depriving my wife and me to return to our home town of Orinda, the location of the Lombardy site is undesirable or the improper location for reasons presented below. The comments made below are some of our comments presented in response to the DEIR prepared for EBMUD.

We have read the draft EIR and considered the elements of the plan as you kindly explained them at the site visit you attended earlier this month. We understand EBMUD's explanation for the need to upgrade service in the Happy Valley area, but believe that the Lombardy site is unsuitable for the pumping plant.

Fortunately, the alternative site for the plant identified by EBMUD on Miner Road at Camino Sobrante offers plainly a better choice in virtually all respects and its owners, the Ted Urban family, have agreed to its acquisition.

Lombardy Site

The Lombardy property is owned by a company, owned by myself and my wife. It comprises almost two acres and is one of the choicest buildable lots in Orinda. It is densely covered with natural vegetation and populated by several ancient oak trees. Two creeks converge at its southern end. The immediate neighborhood is uniquely quiet, particularly at night.

Miner Road Site

The Miner Road site is an open grassy field. It is the southern part of a parcel divided by a steeply banked creek and heavy foliage. A home is situated on the northern side. The site cannot be subdivided or easily put to any use that would serve the residence. The two houses flanking the property are sited a considerable distance from the lot. Their garages, drives, and walls and fences separate the lot from their living areas.

Proposed Pumping Plant

The pumping plant will consist of two industrial pumps and a large electric transformer *that will operate at night.* The pumps would be housed in a structure approximately 60 feet by 40 feet in size. A drive and parking area would surround the facility. During the estimated 2-year construction stage of the project, the site would serve as a corporate yard used to park earth-moving and other large vehicles and store equipment and materials.

Summary of Objections and Reason for Selecting the Miner Road Site

1 .Noise

The character of the Lombardy Lane area is defined by its tranquility, particularly during the late night and early morning hours. The EIR acknowledges that substantial noise would be emitted by the pump and the transformer. It does not comment on the cumulative effect of the two noises, one of which would likely be a hum and the other a whine. The proposed siting of the pumps is within feet of the bedroom of George and Perry Linton, the neighbors to the immediate east of the proposed site.

The use of Miner Road site, by contrast, would have little noise impact on the community, as the two adjacent houses are buffered from the pump and transformer sounds by the placement of their garages.

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In order to reach the Lombardy Lane site from Miner Road, trucks and equipment would have to travel the additional one-mile distance past more than 40 homes fronting the street. That stretch of road services the two arterial roads leading to Sleepy Hollow School and the Sleepy Hollow Swim & Tennis Club, both of which are heavily used by parents transporting children to the facilities.

Use of Miner Road property would shorten the distance that trucks and equipment would travel from Camino Pablo and have less impact on school and swim club traffic. Additionally, it can be accessed by both Miner Road and Camino Sobrante.

3. Trees

The EBMUD's plan for Lombardy Lane calls for the removal of at least two heritage oaks. These trees are more than 150 years of age and contribute to the beauty of the neighborhood. No trees of any note would have to be removed at the Miner Road site. Additional trees and landscaping could be installed at the following construction.

4. Acquisition Cost

The Lombardy Lane site is a large, premier, buildable, parcel. We are unwilling to sell it to EBMUD voluntarily. We would be entitled to the full value in the event EBMUD forced the sale through use of its eminent domain powers. An environmental or acquisition dispute could be litigated for years.

The Miner Road parcel is considerably smaller and has limited use. While the Urban's would be entitled to full value, there is no question that the price resulting from a voluntarily negotiated sale would be much more favorable to EBMUD and its rate payers.

In summary, use of the Lombardy Lane site for the pumping plant is inappropriate and strongly opposed by the owners and residents in the Sleepy Hollow community. The Miner Road property is in almost every respect uniquely suitable for the proposed use and its owners do not object to its acquisition. The EIR itself identifies the Miner Road site as a viable alternative. I believe that under CEQUA that the Miner Road site must be selected given the advantages of the reduced effect of noise on the surrounding residences, the increased traffic safety, the reduced acquisition cost, and the availability of the Miner Road site without the need to litigate with the owners. Given these circumstances, we urge EBMUD to adopt the alternative site on Miner Road for installation of the Happy Valley pumping plant.

Please understand that the above represents the owner's comments and that owner's consul familiar with these matters will submit clarification and or additions to these comments concerning the project and EIR.

Thank you for your consideration.

Very Truly Yours,

Robert E. Wooldridge
President of Wooldridge Construction

Cc: EBMUD Board of Directors
Mayor and Council Members
City of Orinda
Planning Department, City of Orinda

Baker, Sue

From: Baker, Sue on behalf of Water Treatment Transmission Improvements Program
Sent: Monday, July 17, 2006 12:29 PM
To: JHamilton@esassoc.com
Cc: Zavadil, Judith; McGowan, Timothy; Harlow, Nora
Subject: Comment WTTIP DEIR - Sally & Michael Rubinstein

rom: Sallyr157@comcast.net [mailto:Sallyr157@comcast.net]
ent: Friday, July 14, 2006 2:36 PM
o: Harlow, Nora
ubject:

EBMUD Community Affairs Office; I am writing this to register my opposition to building a pumping station on ombardy Lane. I believe that the noise, traffic congestion,unsightliness of such a facility,will have a serious negative ffect on our quality of life and property value in Sleepy Hollow. I also believe that tearing up Miner Rd and ombardy Lane could result in a terrible catastrophy, In case of fire, earthquake or other disaster .That is because LL nd Miner Rkd are very narrow, two lane roadswhich already carry too much traffic and shutting even one for any xtended period could result in a tragedy because we the unable to get out of SH or Orinda Downs with the road ll blocked up. We have lived in SH since 1964 and have seen houses burned to the ground because the Fire Trucks vere unable to get through. Please reconsider putting a pumping station in Sleepy Hollow it would have ! a serio us ffect on the quiet and beauty we so enjoy. Sincerely, Sally and Michael Rubinstein 157 Lombardy Lane Phone 925-54-8743

Baker, Sue

From: Baker, Sue on behalf of Water Treatment Transmission Improvements Program
Sent: Monday, July 31, 2006 11:55 AM
To: 'wttip@esassoc.com'; Kirkpatrick, William
Cc: Zavadil, Judith; McGowan, Timothy; Harlow, Nora
Subject: Comment WTTIP DEIR - Jim & Francoise Cervantes

rom: Jim & Francoise Cervantes [mailto:jrcervantes@earthlink.net]
ent: Friday, July 28, 2006 11:25 AM
o: Water Treatment Transmission Improvements Program
c: Jim & Francoise Cervantes
ubject: EBMUD's Water Treatment Plant Project

udy,

believe we traded messages on this project some months ago. I am a board member of the Sleepy Hollow Homeowners's Association. I've reviewed portions of the EIR with a specific focus on the proposed Happy Valley Pumping Station and the pipeline work along Lombardy Lane and Miner Road. I have a few uestions for you:

) How large will the HV pump station be in terms of its footprint, height, etc. ? It would be helpful o equate it to the dimensions of a home (i.e., 2,000 square feet and 40x50).

) We've heard that it will be surrounded by a barbed wire fence, etc. Can you elaborate?

) We also understand that the site would be used as a staging area during the construction process. What oes this entail? Given that the area around the proposed Lombardy Lane is a residential area and that ombardy Lane is rather narrow, this poses concerns.

) Would the two acre parcel be used in its entirety, or would EBMUD propose to acquire a portion of the ite. Related to this, how much acreage does EBMUD require for the site?

) Can you comment on the sound that would be produced from the pumping plant (i.e., volume, during hat periods of the day would it run, etc.)

) Does EBMUD have schematic of what the pump station would look like?

) Is there a viable alternative site? There is another, smaller vacant parcel on Miner Road across from amino Sobrante. Would this work for EBMUD's purposes?

) The EIR comments that "there is currently inadequate pumping capacity to supply the Las Aromas ressure zone during maximum day demand conditions; an additional 3.2 mgd is required to meet aximum day demand conditions in 2030." In lay terms, what does this mean? For example, what area oes the Las Aromas pressure zone include? What is the shortfall during maximum day conditions? I'm ssuming that the HV pump station will provide the 3.2 mgd pumping capacity...what portion of this

capacity would be for current needs vs. future demand?

9) With regard to the Lombardy Lane/Miner Road pipeline project: how long is this project expected to take? I noted the schematics in the EIR...I take it that one traffic lane will likely be closed when the work is done. Will the work be done in segments?

10) Will the pipeline project increase fire flow in the immediate area?

Thank you very much for your consideration of these questions. I look forward to meeting you in person at the August 2 hearing. Given the level of questions regarding this project, I'm sure that EBMUD will have a comprehensive presentation of the purpose, rationale and logistics of the project.

Yours,

Jim Cervantes
rcervantes@earthlink.net

2.85 Robert and Clarita Wooldridge

Many of the comments in this letter are similar to comments in the letter submitted by the City of Orinda. Consequently, many of the responses below cross-reference to responses for the Orinda letter.

RCW-1 The comments in this letter are submitted on behalf of the owners of the DEIR Proposed Happy Valley Pumping Plant site. Please note that District staff is recommending that the Board of Directors approve the alternative site for the Happy Valley Pumping Plant (on Miner Road) after discussions with the owner of this parcel and consideration of other information.

RCW-2 Refer to **Response RCW-1**. The need for the Happy Valley Pumping Plant is described on DEIR p. 2-74. Refer also to Section 2.1.4, Master Response on the Need for and Alternatives to the Happy Valley Pumping Plant and Pipeline project for an expanded discussion of the need for this facility.

RCW-3 The referenced comments were submitted to EBMUD separately and are responded to elsewhere in this Response to Comments document.

RCW-4 Refer to **Responses ORIN-1** and **ORIN-2**. Refer also to Section 2.1.2, Master Response on Benefits to Orinda, and Section 2.1.4, Master Response on the Need for and Alternatives to the Happy Valley Pumping Plant and Pipeline, for an expanded discussion of the need for this facility and the benefits that the facility will provide.

RCW-5 Refer to **Response ORIN-2**.

RCW-6 Refer to **Response RCW-1** regarding District preference for the Happy Valley Pumping Plant Alternative site and subsequent responses presented below regarding the adequacy of the DEIR. Section 2.1.4, Master Response on the Need for and Alternatives to the Happy Valley Pumping Plant and Pipeline, also provides an expanded discussion of the need for this facility. **Responses ORIN-11** through **ORIN-14** address alternative treatment technologies. **Response ORIN-15** also addresses the infrastructure upgrades.

RCW-7 This comment summarizes more detailed comments presented in the letter. As indicated in subsequent responses, the DEIR meets CEQA requirements and need not be recirculated. Refer to **Response RCW-1** regarding District preference for the Happy Valley Pumping Plant Alternative site.

RCW-8 Refer to **Responses ORIN-7** and **ORIN-8** regarding the project description, as well as Section 2.1.1, Master Response on Program- and Project-Level Distinctions.

RCW-9 Refer to **Response ORIN-6** regarding the DEIR description of the project and its objectives, purpose, and need, as well as Section 2.1.2, Master Response on Benefits to Orinda.

RCW-10 Refer to **Response ORIN-10.**

RCW-11 Refer to **Responses ORIN-11a, ORIN-11b,** and **ORIN-15.**

RCW-12 The DEIR discussion and documents referenced in the DEIR describe the need for the new infrastructure. Refer to Section 2.1.4, Master Response on the Need for and Alternatives to the Happy Valley Pumping Plant and Pipeline project for an expanded discussion of the need for this facility.

RCW-13 Refer to Section 2.1.4, Master Response on the Need for and Alternatives to the Happy Valley Pumping Plant and Pipeline project for an expanded discussion of the need for this facility. Please also reference the documents cited in the DEIR and discussions of anticipated development.

RCW-14 Refer to Section 2.1.4, Master Response on the Need for and Alternatives to the Happy Valley Pumping Plant and Pipeline project for an expanded discussion of the need for this facility. **Response ORIN-15** also addresses the need for infrastructure upgrades.

RCW-15 Refer to Section 2.1.4, Master Response on the Need for and Alternatives to the Happy Valley Pumping Plant and Pipeline project for an expanded discussion of the need for this facility. As noted in the DEIR, the proposed plant and pipeline would meet existing and anticipated future demand.

RCW-16 Refer to Section 2.1.4, Master Response on the Need for and Alternatives to the Happy Valley Pumping Plant and Pipeline project for an expanded discussion of the need for this facility.

RCW-17 This comment summarizes CEQA requirements for impact analyses and then asserts that the DEIR fails to meet these requirements based on subsequent comments. Please refer to subsequent responses and responses to the City of Orinda, detailing why the DEIR complies with CEQA.

RCW-18 Refer to **Response ORIN-25**.

RCW-19 Refer to **Responses ORIN-25** and **ORIN-26**. Section 3.2.3 of the DEIR evaluates whether proposed project components would conflict with adjacent existing land uses.

RCW-20 Refer to **Response ORIN-26**.

RCW-21 Refer to **Responses ORIN-28** and **ORIN-29**.

RCW-22 Refer to **Response ORIN-30**.

RCW-23 Refer to **Response ORIN-30**.

RCW-24 Refer to **Response ORIN-31**.

RCW-25 Refer to **Response ORIN-32**.

RCW-26 Refer to **Response ORIN-38**.

RCW-27 Refer to **Response ORIN-42**. Compliance with the permits would be expected to ensure that discharges will not violate water quality standards, result in substantial erosion or siltation, or create or contribute runoff water that would exceed the capacity of existing or proposed stormwater drainage systems or provide substantial additional sources of polluted runoff.

RCW-28 Refer to **Response ORIN-43**.

RCW-29 Refer to **Response ORIN-45**.

RCW-30 Refer to **Response ORIN-45**.

RCW-31 Refer to **Response ORIN-47**.

RCW-32 Refer to **Response ORIN-48**. The DEIR proposes, and EBMUD has committed to implementing, a range of mitigation measures designed to minimize potential impacts to these resources.

RCW-33 Refer to **Response ORIN-49**. The measures will ensure that impacts to water quality will be less than significant.

RCW-34 Refer to **Response ORIN-50**.

RCW-35 Refer to **Response ORIN-54**.

RCW-36 Refer to **Response ORIN-55**.

RCW-37 Refer to **Response ORIN-56**.

RCW-38 Refer to **Response ORIN-57**. The discussion in DEIR Section 3.6 and Appendix D presents information on the life cycles and habitat requirements of sensitive species.

RCW-39 Refer to **Response RWC-1** which states that District staff is recommending that the Board of Director's approve the alternative site for the Happy Valley Pumping Plant. Should this occur, no protected trees on the Woddridge property will be removed. However, the DEIR states that damage may occur to protected trees at the proposed Happy Valley Pumping Plant site and sets forth measures to minimize these potential

impacts (see Table 3.6-5, DEIR p. 3.6-31). These measures include: Measure 3.6-1a, *Tree Protection Measures During Construction*; Measure 3.6-1b, *Protected Tree Pruning and Replacement*; Measure 3.6-1c, *Protected Tree Monitoring*; and Measure 3.6-1d *Replacement Tree Monitoring Program*. These measures provide for, among other things, the mapping of trees to be removed or retained at each project site; the identification and protection of retained trees; the use of special construction techniques, such as hand equipment for trenching and/or allowing only one pass through a tree's dripline, when proposed development or other site work must encroach upon the dripline of a preserved tree; all pruning of preserved trees to be performed by a certified arborist and no more than 25 percent of a tree's canopy to be removed; removal of protected trees native to the local area, such as valley oak and coast live oak, to be compensated for at a 3:1 ratio and non-native protected trees to be replaced at a 1:1 ratio with a non-invasive tree species.

Furthermore, EBMUD will guarantee the health of all trees to be preserved within and adjacent to the construction corridor of project-related pipeline and facility sites for three years. If the District constructs or installs improvements or performs approved mechanical excavation within the dripline of any tree, the guarantee period for a tree will be five years. The District will replace any retained tree that dies as a result of construction activities during the guarantee period with a tree of the same species. EBMUD will also implement a five year tree monitoring program that will apply to all replacement plantings. These mitigation measures will minimize damage to trees in or near construction areas and will therefore minimize the potential for tree death.

RCW-40 Refer to **Responses ORIN-63**, and **ORIN-9** and **ORIN-10**. The DEIR has included information stating why the project is necessary.

RCW-41 Refer to **Response ORIN-64** regarding traffic assumptions.

RCW-42 Refer to **Response ORIN-65** regarding traffic assumptions.

RCW-43 Refer to **Response ORIN-66** regarding measures to ensure traffic impacts will not be significant.

RCW-44 Refer to **Response ORIN-67** regarding pipeline projects along affected roads.

RCW-45 Refer to **Response ORIN-68**. EBMUD has ensured that these measures will be implemented.

RCW-46 Refer to **Response DS-9**.

RCW-47 Refer to **Response ORIN-106.**

RCW-48 Refer to **Response ORIN-83**.

RCW-49 Refer to **Response ORIN-84**.

RCW-50 Refer to **Response ORIN-87**.

RCW-51 Refer to **Response ORIN-88**.

RCW-52 Refer to **Responses ORIN-89** and **ORIN-90**.

RCW-53 Refer to **Response ORIN-93**.

RCW-54 Refer to **Response ORIN-114** and **ORIN-115**.

RCW-55 Refer to **Response ORIN-115** and Section 2.1.4, Master Response on the Need for Alternatives to Happy Valley Pumping Plant and Pipeline.

RCW-56 Please refer to Section 2.1.4, Master Response on the Need for and Alternatives to the Happy Valley Pumping Plant and Pipeline project.

RCW-57 As stated in **Response RCW-1**, District staff is recommending that the Board of Directors approve the Happy Valley Pumping Plant Alternative Site. Section 3.4 of this Response to Comments document presents supplemental information on the Happy Valley Pumping Plant Alternative site (e.g., visual simulations) prepared in response to comments, and while the magnitude of some impacts at the alternative site (namely, trees and visual quality) would be less than characterized in the DEIR, neither site is clearly environmentally superior to the other.

RCW-58 The comment is correct that construction of the new pumping plant at the alternative location would shorten the distance that trucks and equipment would have to travel from Camino Pablo during (and after) construction of the pumping plant, lessening the magnitude of disruption to the Sleepy Hollow area (e.g., impacts to traffic flow, noise along haul routes, and traffic safety impacts). Section 6.8.2 of the DEIR acknowledges that some volume-sensitive impacts (e.g., traffic, noise, and air quality) would be incrementally less (relative to impacts of the proposed site) because the haul route would be shorter and less pipe would be constructed with the alternative site. Construction impacts would still occur along Miner Road and Lombardy Lane during the installation of the pipeline, and while the alternative site can be accessed via Miner Road and Camino Sobrante, the preferred site can be accessed via Lombardy Lane and Happy Valley Road.

RCW-59 Refer to the previous response. Community disruption impacts are discussed in detail in Sections 3.8 and 3.10 of the DEIR. Section 3.8 of the DEIR, Traffic and Circulation, describes the projected traffic, disruption of traffic flows and street operations, and other potential impacts due to project construction activities on the proposed site. The maximum trip generation of about 34 one-way vehicle trips per day (see Table 3.8-5) would represent an increase of about 0.6 percent of the average

daily volume of about 6,140 vehicles on Miner Road (see Table 3.8-1); this would be a less-than-significant impact. Although the added traffic could represent a noticeable percent increase, on lower-volume Lombardy Lane, the effect on traffic flow would be less than significant because the traffic volumes would remain at levels clearly less than the carrying capacity of the road. Pursuant to Measure 3.8-1, EBMUD will address access to the Sleepy Hollow Elementary School in traffic control plans as a condition of project approval (refer also to **Response ORIN-147**).

RCW-60 Refer to **Response RCW-1.** Note that EBMUD seeks to acquire land from willing sellers rather than exercising the power of eminent domain where possible. The focus of the EIR, however, is on environmental impacts.

RCW-61 Refer to **Response RCW-1.** Note that the focus of the EIR is on environmental impacts, not project costs.

RCW-62 These comments regarding site characteristics are noted. Refer to **Response RCW-1**.

RCW-63 The commenter's understanding of the pipeline is correct.

RCW-64 The comment suggests that the DEIR fails to consider a reasonable range of alternatives for the Happy Valley Pumping Plant and Pipeline.

The commenter is correct that CEQA requires project proponents to explore a reasonable range of alternatives. However, as discussed on DEIR p. 6-2, an EIR need not consider every conceivable alternative but must consider a reasonable range to identify ways that significant environmental effects can be reduced or avoided. The 'rule of reason' governs the selection and consideration of alternatives, requiring that an EIR set forth only those alternatives necessary to permit a reasoned choice with an emphasis on alternatives that are feasible, can attain most basic project objectives, and can substantially reduce significant environmental impacts. With regard to the Happy Valley Pumping Plant and Pipeline, Table 6-1 on DEIR p. 6-4 discloses five alternatives that were either considered and rejected as infeasible, or are still being considered, including the preferred site and the alternative site. The three alternatives that were rejected as infeasible include: expanding the capacity of existing pumping plants and not building the Happy Valley Pumping Plant or Pipeline; constructing a larger Happy Valley Pumping Plant and decommissioning the Sleepy Hollow Pumping Plant; and constructing the Happy Valley Pumping Plant at site #1 located on 1 Miner Road (see DEIR pp. 6-61 and 6.62 for further discussion of these alternatives). These alternatives were rejected for the reasons described in the document. The DEIR also analyzes the site near the Miner Road/Camino Sobrante intersection, and, as noted by the commenter, this alternative would lessen some impacts, including volume sensitive impacts such as traffic and noise. Refer also to Master Response 2.1.4 on the Need for and Alternatives to the Happy Valley Pumping Plant and Pipeline project for an expanded discussion of the need for this facility.

RCW-65 The comment says that there is insufficient discussion in the DEIR regarding feasible alternatives and mitigation measures.

As discussed in DEIR Chapter 6, the WTTIP is the result of a six-year planning effort that entailed consideration of over 60 alternatives. Sources of the alternatives considered included background reports prepared for the WTTIP (described in Section 6.10 of the DEIR), suggestions made in response to the notice of preparation, at public meetings held for the WTTIP, and by the EIR preparers. Table 6-1 lists the alternatives considered, indicates whether the alternatives were evaluated in the EIR or were eliminated, and the source of the alternative. Numerous alternatives were eliminated from consideration based on inability to meet most of the project's basic objectives, infeasibility, or inability to reduce the project's environmental impacts. Those alternatives retained for consideration (in addition to Alternatives 1 and 2) are presented in Sections 6.3 through 6.9 of the DEIR. The alternatives screening process, alternatives eliminated and the reasons for their elimination are discussed in Section 6.10 of the DEIR.

With regard to mitigation measures, CEQA requires that an EIR "shall describe feasible measures which could minimize significant adverse impacts…" Guidelines § 15126.4(a)(1). Chapter 3 of the DEIR identifies measures to mitigate impacts that could result from implementation of the WTTIP projects. This chapter also describes the physical and regulatory setting of the WTTIP and identifies the criteria to be applied for determining impact significance. Table S-10 provides a summary of mitigation measures by impact.

RCW-66 Refer to Section 2.1.4, Master Response on the Need for and Alternatives to the Happy Valley Pumping Plant and Pipeline project for an expanded discussion of the need for this facility.

RCW-67 Refer to Section 2.1.4, Master Response on the Need for and Alternatives to the Happy Valley Pumping Plant and Pipeline project for an expanded discussion of the need for this facility.

RCW-68 For reasons stated throughout this Responses to Comments Document, EBMUD staff believes the DEIR adequately meets CEQA requirements and need not be recirculated.

RCW-69 As noted in **Response RCW-3**, the referenced comments attached to this comment letter were submitted to EBMUD separately and are responded to elsewhere in this Response to Comments document.

Comment Letter RCW1

ROBERT AND CLARITA WOOLDRIDGE

1072 CAMINO VERDE CIR.
WALNUT CREEK, CA 94597
925-519-7979
REW@HERSHEYSMILL.COM

East Bay Municipal Utility District
c/o Judy Zavadil, Senior Project Manager
P.O. Box 24055, MS701
Oakland, CA 94623-1055

Re: Happy Valley Pumping Plant
Water Treatment and Transmission Improvement Project

This letter is written in response to EBMUD's request to comment on the draft EIR for the Water Treatment and Transmission Improvement Project.

We have owned the site, on which EBMUD proposes to locate the Happy Valley Pumping Plant, for 30 years. My wife and I lived on the site next door at 164 Lombardy Lane until 1982 at which time our work required us to relocate to the East Coast. We retained the site at 162 Lombardy, with the intention to build our home upon return to California. We have now returned and intend to have a home constructed for our home, during the next year. As you are probably aware, a level building site in the Sleepy Hollow area of Orinda on which to build our home is virtually non existent. In addition to the adverse consequence of depriving my wife and me to return to our home town of Orinda, the location of the Lombardy site is undesirable or the improper location for reasons presented below. The comments made below are some of our comments presented in response to the DEIR prepared for EBMUD.

We have read the draft EIR and considered the elements of the plan as you kindly explained them at the site visit you attended earlier this month. We understand EBMUD's explanation for the need to upgrade service in the Happy Valley area, but believe that the Lombardy site is unsuitable for the pumping plant. RCW1-1

Fortunately, the alternative site for the plant identified by EBMUD on Miner Road at Camino Sobrante offers plainly a better choice in virtually all respects and its owners, the Ted Urban family, have agreed to its acquisition. RCW1-2

Lombardy Site

The Lombardy property is owned by a company, owned by myself and my wife. It comprises almost two acres and is one of the choicest buildable lots in Orinda. It is densely covered with natural vegetation and populated by several ancient oak trees. Two creeks converge at its southern end. The immediate neighborhood is uniquely quiet, particularly at night.

Miner Road Site

The Miner Road site is an open grassy field. It is the southern part of a parcel divided by a steeply banked creek and heavy foliage. A home is situated on the northern side. The site cannot be subdivided or easily put to any use that would serve the residence. The two houses flanking the property are sited a considerable distance from the lot. Their garages, drives, and walls and fences separate the lot from their living areas.

Proposed Pumping Plant

The pumping plant will consist of two industrial pumps and a large electric transformer *that will operate at night.* The pumps would be housed in a structure approximately 60 feet by 40 feet in size. A drive and parking area would surround the facility. During the estimated 2-year construction stage of the project, the site would serve as a corporate yard used to park earth-moving and other large vehicles and store equipment and materials.

Summary of Objections and Reason for Selecting the Miner Road Site

1 .Noise

The character of the Lombardy Lane area is defined by its tranquility, particularly during the late night and early morning hours. The EIR acknowledges that substantial noise would be emitted by the pump and the transformer. It does not comment on the cumulative effect of the two noises, one of which would likely be a hum and the other a whine. The proposed siting of the pumps is within feet of the bedroom of George and Perry Linton, the neighbors to the immediate east of the proposed site.

RCW1-3

The use of Miner Road site, by contrast, would have little noise impact on the community, as the two adjacent houses are buffered from the pump and transformer sounds by the placement of their garages. RCW1-4

2. Traffic and Safety

In order to reach the Lombardy Lane site from Miner Road, trucks and equipment would have to travel the additional one-mile distance past more than 40 homes fronting the street. That stretch of road services the two arterial roads leading to Sleepy Hollow School and the Sleepy Hollow Swim & Tennis Club, both of which are heavily used by parents transporting children to the facilities. RCW1-5

Use of Miner Road property would shorten the distance that trucks and equipment would travel from Camino Pablo and have less impact on school and swim club traffic. Additionally, it can be accessed by both Miner Road and Camino Sobrante. RCW1-6

3. Trees

The EBMUD's plan for Lombardy Lane calls for the removal of at least two heritage oaks. These trees are more than 150 years of age and contribute to the beauty of the neighborhood. RCW1-7 No trees of any note would have to be removed at the Miner Road site. Additional trees and landscaping could be installed at the following construction. RCW1-8

4. Acquisition Cost

The Lombardy Lane site is a large, premier, buildable, parcel. We are unwilling to sell it to EBMUD voluntarily. We would be entitled to the full value in the event EBMUD forced the sale through use of its eminent domain powers. An environmental or acquisition dispute could be litigated for years. RCW1-9

The Miner Road parcel is considerably smaller and has limited use. While the Urban's would be entitled to full value, there is no question that the price resulting from a voluntarily negotiated sale would be much more favorable to EBMUD and its rate payers. RCW1-10

Comment Letter RCW1

In summary, use of the Lombardy Lane site for the pumping plant is inappropriate and strongly opposed by the owners and residents in the Sleepy Hollow community. The Miner Road property is in almost every respect uniquely suitable for the proposed use and its owners do not object to its acquisition. The EIR itself identifies the Miner Road site as a viable alternative. I believe that under CEQUA that the Miner Road site must be selected given the advantages of the reduced effect of noise on the surrounding residences, the increased traffic safety, the reduced acquisition cost, and the availability of the Miner Road site without the need to litigate with the owners. Given these circumstances, we urge EBMUD to adopt the alternative site on Miner Road for installation of the Happy Valley pumping plant. RCW1-11

Please understand that the above represents the owner's comments and that owner's consul familiar with these matters will submit clarification and or additions to these comments concerning the project and EIR. RCW1-12

Thank you for your consideration.

Very Truly Yours,

Robert E. Wooldridge
President of Wooldridge Construction

Cc: EBMUD Board of Directors
Mayor and Council Members
City of Orinda
Planning Department, City of Orinda

2.86 Robert and Clarita Wooldridge

RCW1-1 Please note that District staff is recommending that the Board of Directors approve the alternative site for the Happy Valley Pumping Plant (on Miner Road) after discussions with the owner of this parcel. The approval of this project is subject to the discretion of the Board of Directors.

RCW1-2 The opinion regarding the merits of the Happy Valley Alternative site is noted. Commenter is correct regarding the owner of the Happy Valley Pumping Plant Alternative Site (see **Response TU-1**). Refer also to **Response RCW1-1**.

RCW1-3 See **Responses DS-4** and **DS-5** for discussion of operational noise levels at the DEIR Proposed Happy Valley Pumping Plant site. Table 3.10-8 (DEIR p. 3.10-42) estimates noise levels from the transformer to be 23 dBA (Leq) at the closest residence to the east, while pump noise is estimated to be 53 dBA (Leq) at this same residence. Addition of these two noise levels would yield the same noise level of the pump, 53 dBA (Leq), due to the large difference in the two noise levels. The addition of two noise levels (when there is a difference of 16 dB or more) does not increase the higher noise level.

The DEIR acknowledges the hum component of transformer noise in Table 3.10-8, footnote c (p. 3.10-42), where a 5 dB penalty is added to the Lafayette nighttime noise limit for transformer noise. This reduces the Lafayette nighttime noise limit to 48 dBA (Leq) for transformer noise, while the Orinda nighttime noise limit for all mechanical equipment (regardless of hum component) is still lower, at 45 dBA (Leq). Both standards are listed in Table 3.10-8 and pumping plants will need to be designed to meet these standards.

RCW1-4 This response expands on information presented on DEIR p. 6-37. In brief, the magnitude of noise impacts at the Happy Valley Pumping Plant Alternative site would be less than at the Lombardy Lane site (and mitigable) because ambient noise is higher and there would be fewer receptors near the noise sources at the plant (the vent and transformer). Refer also to Section 3.4 in the Response to Comments document.

Development of the Happy Valley Pumping Plant Alternative site would locate the pumping plant and transformer approximately 50 feet from the existing home to the north and 150 feet from the existing home to the south. At such proximities, noise levels associated with construction and operation of a pumping plant at the alternative site would be similar to those described for the DEIR Proposed site for the closest residences to the east and west (see DEIR pp. 3.10-25 and 3.10-46). Noise measurements taken at the alternative site[1] confirm that the magnitude of noise

[1] Noise measurements were taken at the Happy Valley Pumping Plant Alternative site in November, 2006.

impacts at the Happy Valley Pumping Plant Alternative Site would be less than at the DEIR Proposed site (and mitigable). The measurement taken at the alternative site for existing noise levels was 54 CNEL, which is 2 dB higher than the measurement taken at the DEIR Proposed site (52 CNEL).

Like at the DEIR Proposed site, noise impacts at the alternative site also would be considered less than significant with mitigation. The same construction-related noise controls and operational design measures (orienting vents away from the residences to the north and south) would be required (see discussion in Table 6-5 of the DEIR). However, there appear to be fewer residential receptors close to the alternative site, and ambient noise levels are slightly higher than the Lombardy Lane site due to traffic on Miner Road. At the alternative site, this would provide more options for locating vents away from sensitive receptors, and there would be fewer receptors potentially affected by the location of pumping plant vents or openings.

RCW1-5 Refer to **Responses RCW-58** and **RCW-59**.

RCW1-6 Refer to **Responses RCW-58** and **RCW-59**.

RCW1-7 See **Response RCW-39**.

RCW1-8 A 10-inch coast live oak would likely be removed from the western edge of the Happy Valley Pumping Plant Alternative Site (See Figure 22). EBMUD intends to keep the existing coast live oaks along the border with Miner Road, and the 18-inch coast live oak on the southern edge of the site. DEIR p. 6-36 assumed that all of the trees along Miner Road would need to be removed in order to construct the Happy Valley Pumping Plant at the alternative site; that assumption was incorrect. Therefore, impacts to trees at the alternative site would not be as great as assumed in the DEIR.

RCW1-9 The comments regarding the owner's willingness to sell the property site are noted. Please see **Response RCW1-1**.

RCW1-10 The comments regarding the alternative parcel are noted. Please see **Response RCW1-1**. EBMUD would negotiate fair market value for any property it would acquire.

RCW1-11 Please see **Response RCW1-1**.

RCW1-12 Please see **Response RCW1-1**.

From: robin jones [mailto:rdmjones@pacbell.net]
Sent: Friday, September 15, 2006 9:55 PM
To: Water Treatment Transmission Improvements Program
Subject: Orinda Filter Plant

EBMUD Board of Directors:

As a resident of Orinda, I am opposed to the proposed plan of expansion for the Orinda Filter Plant for the following reasons:

- **The Draft EIR that has been submitted is ill conceived and problematic on many levels.** RJ-1
- **There is no clearly stated need or requirement in the Draft EIR as to why EBMUD must upgrade and expand the Orinda Filter Plant.** RJ-2
- **Locating this large and expanding facility in a residential community is impractical, risky and not necessary.** RJ-3
- **Removal of the sports fields will hurt the community and deprive children of much needed recreational playing fields** RJ-4
- **Your proposed expansion is contiguous to an elementary school.** RJ-5
- **Additional structures proposed will be unattractive and will counter the semi-rural charter in the City of Orinda .** RJ-6
- **Camino Pablo is designated a scenic corridor. EBMUD is planning to build multiple multi story buildings and huge storage tanks that will be visible from the corridor and therefore violate the scenic corridor designation.** RJ-7
- **No consideration has been given to new technologies for water treatment that would eliminate the need for large storage tanks and additional buildings for water treatment and storage.** RJ-8
- **Other EBMUD locations have not been considered as part of this Draft EIR.**
  - **There are other EBMUD locations where a filter plant could be constructed or expanded that would have NO impact on the City of Orinda and its residents.** RJ-9
- **Our property values will be negatively impacted because of the expansion of the Orinda Filter Plant.** RJ-10
- **The community and its residents and The City of Orinda oppose the expansion of EBMUD's Orinda Filter Plant.** RJ-11

Sincerely,

Robin Jones

***Robin Jones**, Community Education*
Hospice and Palliative Care of Contra Costa
3470 Buskirk Ave., Pleasant Hill, CA 94523
T: (925) 887 5678
F: (925) 887 5679
On the web at www.hospicecc.org

2.87 Robin Jones

Many of the comments in this letter are similar to comments in the letter submitted by Ann Sharf. Consequently, many of the responses below cross-reference to responses in Ms. Sharf's letter.

RJ-1 Please see **Response AS-1**.

RJ-2 Please see **Response AS-2** and Section 2.1.2, Master Response on Benefits to Orinda.

RJ-3 Please see **Response AS-3**.

RJ-4 Please see **Response AS-4**, **BM-2**, and **BM-11**.

RJ-5 Please see **Response AS-5**.

RJ-6 Please see **Response AS-6**.

RJ-7 Please see **Response AS-7**.

RJ-8 Please see **Responses ORIN-118** through **ORIN-120,** and **Response BM-9**.

RJ-9 Please see **Response AS-9**.

RJ-10 EBMUD acknowledges the concerns regarding property values. Refer to Section 2.1.5, Master Response on Social and Economic Costs.

RJ-11 Please see **Response AS-11**.

From: Rik Lee [mailto:rik.ohana@gmail.com]
Sent: Monday, September 18, 2006 12:40 AM
To: Water Treatment Transmission Improvements Program
Cc: lizzylee25@yahoo.com
Subject: EBMUD - Tice Valley Water Pumping Plant (Alternate site)

Dear Ms. Zavadil,

Our family lives at 3303 Freeman Road. Our property shares the most fence line with the alternate site of the proposed Tice Valley water pumping plant (Olympic Boulevard). I am writing this email on behalf our my family to express our opposition for this location of the Tice Valley pumping plant. RL1-1

We met with EBMUD representatives last week on the alternate site location. I gained a better understanding of the scope of the proposed EBMUD project and the impact it would be for me and my family. I appreciate their candid responses to my inquiries.

We oppose the location of the alternate site for the pumping plant for three main reasons:

1. The EBMUD representatives estimated the location of the actual structure on the property. This location estimate is extremely close to our home. Our master bedroom window would look out at the 20-foot structure (replacing the calm feel of sunlight shining through the trees). I recognize a visual complaint may not hold much weight in your decision-making process. However, if this alternate site is chosen, we are willing to pursue avenues (including litigation) to prevent the actual structure from being built so close to our home. RL1-2

2. Work was completed on the alternate site a few years ago. The roots of two tall, mature oak trees were damaged and they ultimately died. The oak trees were not replaced and there is a big open space on the property where they used to be. The health of the remaining oak trees are a major concern to us from the following two perspectives:
   - Safety: Several limbs of the remaining oak trees hang over our property line. If these oak trees are damaged and as a result some limbs fall, they could severely injure/kill a person (including one of our three children) or cause significant damage to our recently re-modeled home.
   - Visual: The oak trees contribute to the great character of our neighborhood. These mature oak trees have been in place many, many years. There would be a large, visual gap that would be irreplaceable if these oak trees died. RL1-3

3. The EBMUD representatives indicated the noise of the pumping that would occur from 6 pm to 6 am would be no louder than an air conditioning unit. With the alternate site being so close to our home (and outdoor patio area), the noise would affect our family the most. I recognize this complaint may not hold much weight in your decision-making process either. However, enjoying the peace of our property is very important to our family. RL1-4

The EBMUD representatives also briefly discussed the original proposed site on the south side of Olympic Boulevard. In our opinion, it appears this is a preferable location for the following reasons:
- location at the end of an open court
- limited affect on homes
- minimal impact to trees (compared to the north side of Olympic Boulevard)

RL1-5

Please let me know if you would like to discuss our opposition of the alternate site for the Tice Valley pumping plant further.
Thank you for your consideration.

Regards,

Richard D. Lee
3303 Freeman Road
Walnut Creek, CA 94595
925.932.5985

2.88 Richard Lee

RL1-1 EBMUD staff is not recommending selection of the Tice Pumping Plant alternative site. However, approval of WTTIP projects and project locations is at the discretion of the EBMUD Board of Directors.

RL1-2 The commenter's opposition to this alternative location for the Tice Pumping Plant is noted. District staff is not recommending the alternative site for approval.

RL1-3 Refer to previous response and to **Response AH-2** regarding measures to reduce potential damage to trees.

RL1-4 As noted in **Response DGB-3**, should this alternative ultimately be selected (not recommended by District staff), this pumping plant will not be allowed to exceed the 45-dBA nighttime noise limit at the closest residential receptors. The 45-dBA nighttime noise limit is equivalent to the strictest noise limit imposed by any municipality connected with the WTTIP project (see Table 3.10-1, DEIR p. 3.10-4, Footnote "a" for more details). See **Response DGB-3** for more discussion.

RL1-5 EBMUD staff is recommending the proposed site on the south side of Olympic Boulevard for Board approval.

Date: 17 September, 2006

To: East Bay Municipal Utility District

Re: Tice Valley Pumping Plant

It has come to my attention that EBMUD is actively considering the "Alternate" site for the proposed Tice Valley Pumping Station.

The "Original" proposed site is located on the South side of Olympic Blvd and West of the Tice Valley intersection. This site would be built on a lot presently deeded to the County plus an adjacent sliver of property that could not be improved for either residential or commercial development (see Attachment A, Lots 20 & 21). The property to the South is undeveloped Agricultural hillside. The nearest residence to the West is about 175 Ft and this is to the corner of a two car detached garage. The actual living space would be about 200Ft from the corner of the Pump House structure. The "Original" site is also at the North end of the Newell Ave. frontage road cul-de-sac which is entered from Olympic Blvd. at an existing intersection with a signal.

The "Alternate" site across Olympic Blvd. is a long narrow lot roughly 430 Ft long and tapering from 72.6 Ft to 105 Ft deep (Attachment B). This lot is presently zoned single family residential with a natural drainage swale along the North property line and a string of Heritage Valley Oaks along this line. Backing up to this lot along the North property line are a number of Freeman Road residences that have been recently improved.

The proposed pumping station will be connecting to existing 20" water lines below Olympic Blvd. and boosting the pressure to lift the water to the next water tank elevation. The pumping power to accomplish will be about 400 horsepower. The proposed Pump House will be about 70 Ft long by 30 Ft deep and will be 20 Ft high. In order to service pumps of this size a Service Yard / Parking Area about 25 Ft deep along the front of the Pump House will be required. The Pump House will probably have roof access hatches above the pumps to allow for a hydraulic crane to lift the pumps for maintenance. The "Construction Zone" for the Pump House will extend 5 Ft. to 10 Ft. behind the structure and a 7 Ft. to 10 Ft. deep Landscaping Zone along Olympic Blvd will also probably be required. The total depth of the development will be approximately 67 Ft to 75 Ft deep. RR-1

Installing the proposed Pumping Station on the "Alternate" site would place the rear wall of the Pump House within 30 Ft to 50 Ft of the Freeman Road residential living space. It would also place the structure beneath the canopy of the existing Heritage Valley Oaks thereby almost assuring their demise within a few years. RR-2 RR-3

Another point to consider is the impact to the traffic on Olympic Blvd. Entrance to the "Alternate" site would be where Olympic Blvd. curves and reduces down to two lanes. The visibility is poor along this stretch and drivers need to be vigilant for bicycle riders continuing down Olympic to the Regional Park Trail head. One could not possibly find a more dangerous location along the whole length of Olympic Blvd for creating an RR-4

industrial truck access to the proposed Pump House. The number of Rossmore residents that use this stretch of Olympic Blvd to reach Pleasant Hill Road and the freeway is significant. There are two left turn lanes from Tice Valley Road on to Westbound Olympic Blvd. The "Alternate" site construction impact to Olympic Blvd traffic would also be significant. RR-4

When one looks across their back yard, over the rear fence and into their rear neighbors yard they typically see some trees, landscaping and the rear of their neighbors house with the roof line usually sloping away from a 10 Ft. eave to a 15 Ft. ridge line. This fits in comfortably with the neighborhood ambience. Replacing that view with a 20 Ft high by 70 Ft long concrete block wall is not acceptable under any circumstance and would drastically reduce the property values of the Freeman Road residences. RR-5

Another point to consider is the noise generated by the pumps. Sitting outside in the evening and hearing a neighbors swimming pool pump cycle is to be expected. These are usually small fractional to 1.5 horsepower motors. Listening to the steady drone of the 400 horsepower pump motor is something else altogether. RR-6

When one considers the Environmental, Life Safety, Visual, Noise and Property Value Impacts it is clear to see why EBMUD considered locating the proposed Pump House at the "Primary" site. There would be minimal impact to the surrounding residences and all construction / maintenance traffic would use the existing signal and frontage road. The Environmental (Trees and Noise) impact would also be minimal and the nearest residential living space would be 4 to 6 times further away. RR-7

Another point to consider is that there have not been any studies performed for the "Alternate" site ("EIR", Arborist's Report, Toxic Waste and impact to the neighborhood). This will all need to be completed prior to any construction on this site. By the time these studies are complete to will be obvious that the "Alternate" is unacceptable for the intended Tice Valley Pumping Plant and the "Preferred" site should be developed as indicated in the current EBMUD documentation. RR-8

A third site which would have even less visual impact to the neighborhood would be to install a below grade pump station on the existing vacant lot at the South East corner of the Tice Valley Blvd. and Olympic Blvd intersection. There is not any adjacent or nearby residential property to this site. RR-9

Given the short notice regarding the proposed pumping project and the possible use of the "Alternate" site I have only been able to address some of the more obvious conflicts. RR-10

Richard L Ronnow, PE
3343 Freeman Rd
Walnut Creek, Ca. 94595

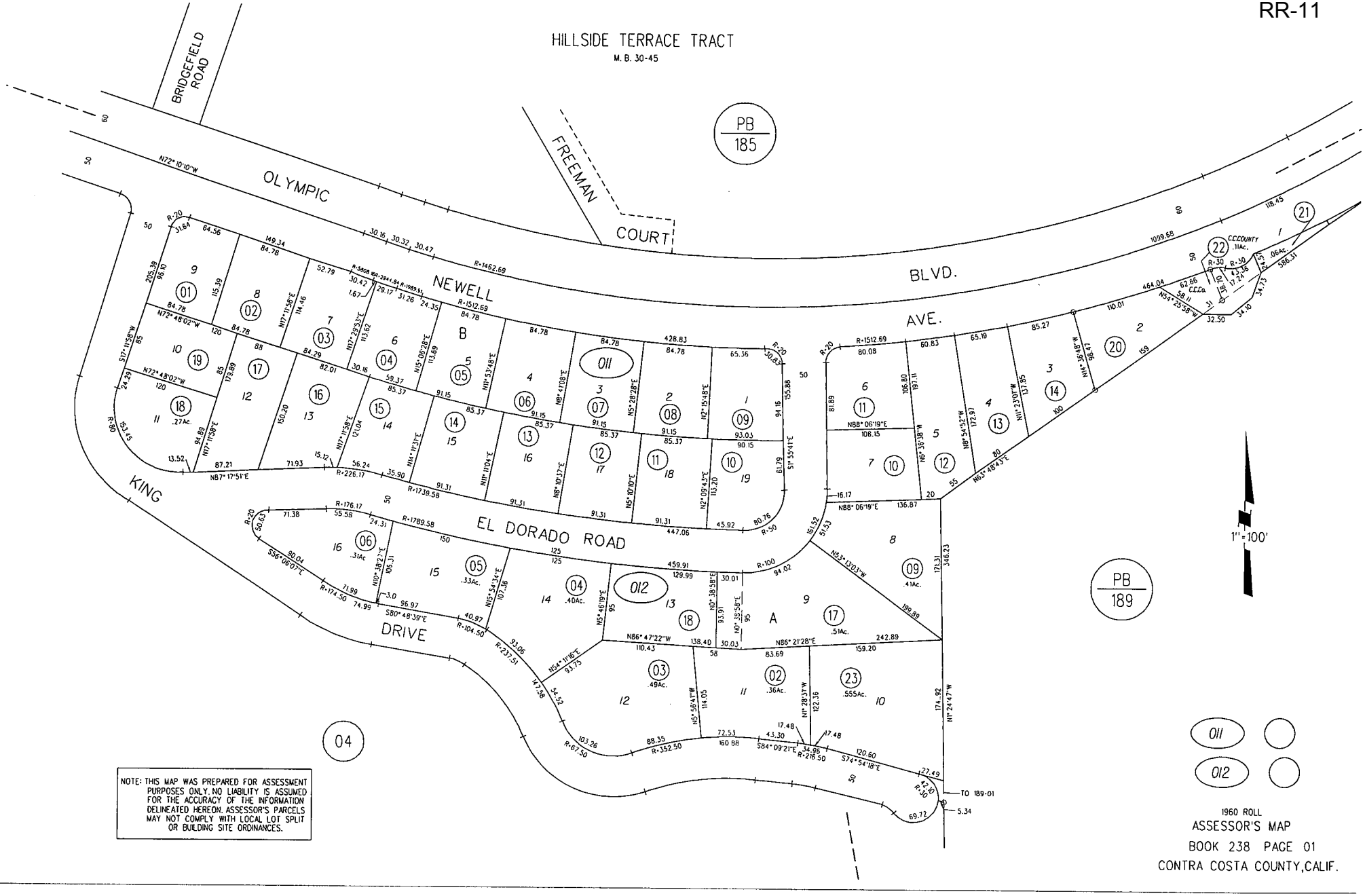
Attachments:

A – Proposed Site - Assessors Map 238 Page 01

B – Alternate Site - Assessors Map 185 Page 22

C – EBMUD Fig. 3.3 TICEPP-3

D – Satellite Photo (Google Earth) showing Proposed and Alternate sites with Heritage Valley Oaks and Freeman Road Residences.


HILLSIDE TERRACE TRACT
M. B. 30-45
BRIDGEFIELD ROAD
OLYMPIC BLVD.
FREEMAN COURT
NEWELL AVE.
EL DORADO ROAD
KING DRIVE
PB 185
PB 189
1" = 100'
NOTE: THIS MAP WAS PREPARED FOR ASSESSMENT PURPOSES ONLY. NO LIABILITY IS ASSUMED FOR THE ACCURACY OF THE INFORMATION DELINEATED HEREON. ASSESSOR'S PARCELS MAY NOT COMPLY WITH LOCAL LOT SPLIT OR BUILDING SITE ORDINANCES.
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1960 ROLL
ASSESSOR'S MAP
BOOK 238 PAGE 01
CONTRA COSTA COUNTY, CALIF.

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1- RECORD OF SURVEY 48 L.S.M. 50 7-24-67
2-1969- 7PM18 -1-30-69

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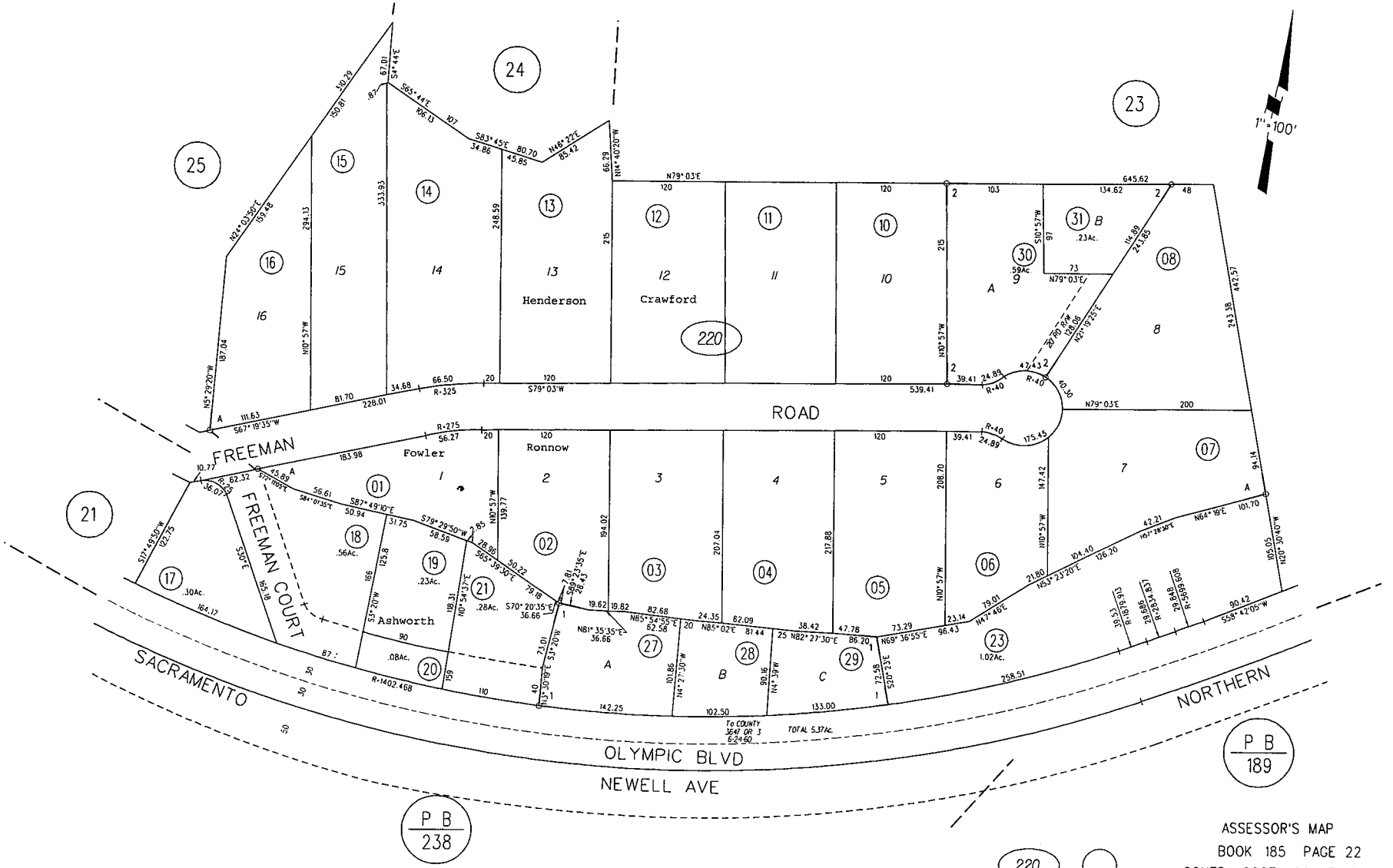
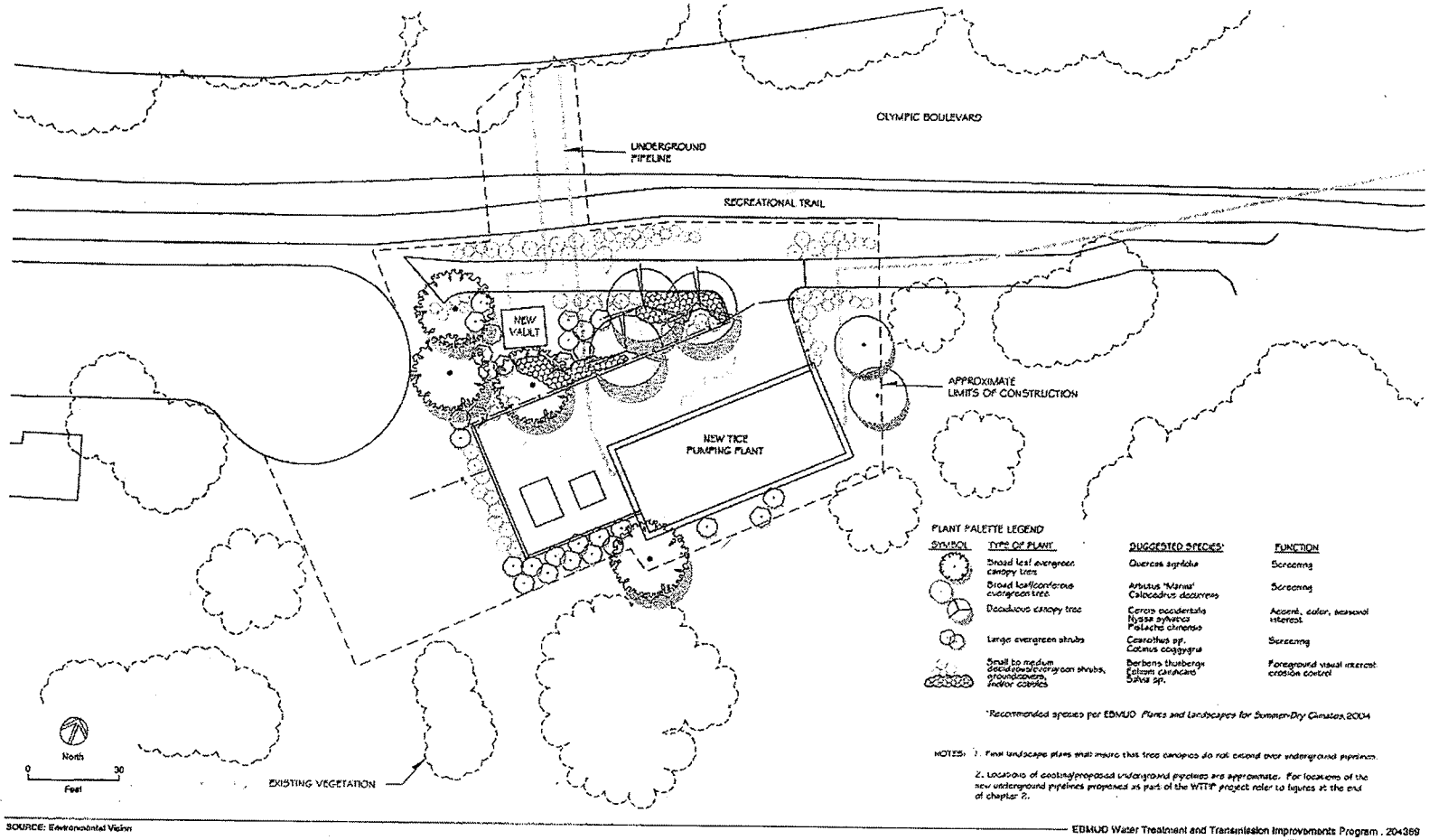


ASSESSOR'S MAP
BOOK 185 PAGE 22
CONTRA COSTA COUNTY, CALIF.



SOURCE: Environmental Vision

EBMUD Water Treatment and Transmission Improvements Program . 204389

Figure 3.3-TICEPP-3
Conceptual Landscape Plan - Tice Pumping Plant


© 2008 Europa Technologies
203 ft
Pointer 37°53'03.54" N 122°04'46.96" W elev 190 ft
Streaming 100%
Eye alt 941 ft

2.89 Richard Ronnow

RR-1 The preliminary design for the Tice Pumping Plant includes three 300 horsepower pumps for a total pumping capacity of approximately 10 million gallons per day (mgd). This information is shown on DEIR p. 2-11. There is not a required width for the service area in front and on the side of the facility; although EBMUD generally tries to keep the access road to a minimum width of about 15 feet. By "depth", EBMUD is assuming that the commenter is referring to the overall width of the development in the horizontal plane, not the excavation depth into the subgrade. The final width would be based on many constraints including property easements, new landscaping, access road widths, creek offsets, tree canopy offsets, hiking trail offsets, overhead power line clearances, and the required width of the structure.

RR-2 Refer to **Response DGB-3** regarding the distance to the house nearest the Tice Pumping Plant alternative site. Note that District staff is not recommending the alternative site for approval.

RR-3 See **Response AH-2**.

RR-4 See **Response AH-3** regarding the DEIR's analysis of potential traffic and circulation impacts (associated mitigation measures), and the use of Olympic Boulevard, associated with construction of the Tice Pumping Plant (both the proposed site and alternative site).

RR-5 The commenter's opposition to the Tice Pumping Plant alternative site is noted. Refer to Section 2.1.5, Master Response on Social and Economic Costs. Also, note that District staff is not recommending the alternative site for approval.

RR-6 The commenter's opposition to this alternative location for the Tice Pumping Plant is noted. District staff are not recommending this site. As noted in **Response DGB-3**, this pumping plant will not be allowed to exceed the 45-dBA nighttime noise limit at the closest residential receptors. See **Response DGB-3** for further discussion.

RR-7 The DEIR characterizes impacts to residences near the proposed Tice Pumping Plant site in Chapter 3. EBMUD staff is recommending the proposed site on the south side of Olympic Boulevard for Board approval.

RR-8 Please see **Responses HOA-1** and **HOA-8**.

RR-9 Comment noted. EBMUD does not construct fully buried pumping plants due to concerns regarding surface water drainage. Generally, buried pumping plants still rise above grade by approximately two to four feet. The "third site" mentioned by the commenter was considered by EBMUD, and is shown as Site #1 on the Tice Pumping Plant Alternative Sites figure found in Appendix J of the DEIR.

RR-10 Consistent with requirements of the California Environmental Quality Act (CEQA), the District issued a Notice of Availability on June 23, 2006 indicating that the WTTIP DEIR had been published. It is District practice to notify landowners impacted by District projects. When the District discovered that individual notices were not received by residents of Freeman Road, an effort was made to contact these landowners. Comments on the project were accepted until September 18, 2006. Seven public meetings on the project were held at various locations. In addition, District staff met with residents on Freeman Road at their request on September 12, 2006.

RR-11 This attachment is Assessors Map 238 Page 01 showing the proposed pumping plant site.

RR-12 This attachment is Assessors Map 185 Page 22 showing the alternative pumping plant site.

RR-13 This attachment is DEIR Figure 3.3-TICEPP-3.

RR-14 This attachment is a Google Earth satellite photo showing the proposed and alternative sites with heritage Valley Oaks and Freeman Road residences.

Comment Letter RS

From: Tammy Sypriano [mailto:SyprianoTE@pacbell.net]
Sent: Tuesday, September 12, 2006 3:52 PM
To: Water Treatment Transmission Improvements Program
Subject: Comments on draft EIR for water treatment & transmission system improvements program

Richard Sypriano
50 Rudgear Drive
Walnut Creek, CA 94596

To whom it may concern. This letter is in reference to the building of a 9 million gallon tank on one of the peaks of Sugerloaf hill overlooking the freeway. In this letter I would like to recommend an alternative to the current plan that is being recommend by EBMUD staff. This alternative could be taken in whole or in part depending on what makes the most sense. First of all I am not apposed to the recommended site, since all the other proposed sites seem less desirable. So this alternative assumes the tank will be built at the current recommended site. This alternative addresses access to the site during and after construction. RS-1

To understand the problem I think it is useful to understand how the current plan was arrived at. I believe the current plan concentrates on the fact that a large amount of dirt must be removed. This is why finding a place to put the dirt became a high priority. As an alternative my plan concentrates on using the construction as an opportunity to enhance the current amenities provided by the park and ride parking lot and also minimize the impact to the surrounding community. RS-2

My plan

1. Build a single access road to the tank site. RS-3
2. Use the park and ride located on Rudgear Drive as the access point. RS-4
3. Build an access road starting at the south side of the park and ride and proceed along the side of the freeway until the road reaches the current proposed Caltrans access road located on the southern side of the hill. RS-5
4. Then use the existing proposed road from the southern side of the hill. RS-6

There are some opportunities I would like EBMUD to pursue.

1. Work with Caltrans to purchase the land and enlarge the current park and ride. This could not only include the land located to the south of the park and ride; but also the land to the east of the park and ride (which was used as the access road in the current proposed plan). Purchasing the land and enlarging the park and ride area should be investigated with Caltrans. RS-7

I also have some comments concerning the temporary access of Rudgear Drive proposed as the way to start the removal of the dirt form the site. Rudgear Drive has 15 families and 12 access points along the path of the proposed traffic. This means that, because of the width of the road no less than 7 flag persons would be required to navigate the trucks up and down Rudgear Drive. Rudgear Drive is currently in substantial disrepair. Even though EBMUD is only required to bring the road back up to is current condition, the RS-8 RS-9

proposed type of traffic could cause the road to give way creating hidden cost that may not be apparent. RS-9

Richard Sypriano

2.90 Richard Sypriano

Please note that the New Leland Pressure Zone Reservoir is examined at program level of detail in the WTTIP EIR. EBMUD is committed to engaging in a project-level EIR at an appropriate date in the future. Refer to Section 2.1.6, Master Response on the New Leland Pressure Zone Reservoir Alternatives, for more information.

RS-1 The comment regarding the reservoir site is noted. See responses below.

RS-2 The comment regarding the reservoir site is noted.

RS-3 The commenter suggests that the District build a single access road to the New Leland Pressure Zone Reservoir. As stated in DEIR p. 2-86, four potential construction access routes are being considered.

RS-4 The California Department of Transportation (Caltrans) has informed EBMUD in a letter dated September 22, 2005 that the State's Park and Ride lot was not designed to handle heavy loads and traffic. They are also concerned that construction access through the park and ride would disrupt the operation of the lot and therefore, informed EBMUD that a separate access road is required.

RS-5 Proceeding along the side of the freeway until the road reaches the current proposed Caltrans access road is not feasible. The only flat space between the travel lanes of Highway 680 and the adjacent slope is the shoulder of the highway. It is unlikely, given safety concerns that Caltrans would consent to operating the freeway without a shoulder.

There is also not enough space between the traveled lanes of the freeway and the access road for trucks to make that turn up the access road. Vehicles that are traveling north on the freeway only have to make a 45 degree turn to exit the freeway and head up the access road. This is a feasible maneuver and is the route contemplated in the DEIR for route C. Vehicles that would be traveling south on a road parallel to the freeway would have to make a 145 degree turn to head up the access road. The type of trucks required to haul dirt from the site require a 60 foot turning radius that is not available between the freeway and the existing access road.

RS-6 Caltrans has informed us that access to and from the site via I-680 is prohibited. Subsequent discussions indicate that there could be some flexibility with vehicles leaving the freeway. Negotiations with Caltrans are ongoing.

RS-7 EBMUD will need to negotiate with Caltrans to purchase the portion of the reservoir site that is owned by the State of California. Purchasing the land and enlarging the park and ride area will be investigated with Caltrans. Please also refer to Section 2.1.3, Master Response on EBMUD Obligations to Comply with Local Ordinances, Obtain Local Agency Approvals and Permits, and Pay Local Agency Fees for additional response pertinent to this comment.

RS-8 Site-specific traffic issues will be evaluated in a separate project-level EIR to be prepared for the New Leland Pressure Zone Reservoir. Preparation of a traffic control plan would be a mitigation measure in that EIR and could be developed during the construction phase of the project. With implementation of mitigation measures similar to Measure 3.8-1 in the DEIR, identified for the project level elements, impacts to traffic and circulation could be reduced.

RS-9 Implementation of mitigation measures similar to Measure 3.8-7 (DEIR p. 3.8-23) would require road conditions to be documented for all routes that will be used by project related vehicles. Roads damaged by construction will be restored to equal to their condition before the construction began.

Comment Letter RSY

Via Email @ wttip@ebmud.com and nharlow@ebmud.com & U.S. Mail

September 8, 2006

Ms. Nora Harlow, Community Affairs Rep.
Ms. Judy Zavadil, Senior Project Manager
WTTIP, MS #701. EBMUD
P.O. Box 24055
Oakland, CA 94623

Subject: **Proposed Access to the New Leland Reservoir**

Dear Ms. Harlow & Ms. Zavadil,

As a resident and owner at 11 Sugarloaf Terrace, Alamo, CA (corner house between Sugarloaf Drive and Sugarloaf Terrace), we are quite disturbed to learn, upon receipt of your notification letter on August 27th, 2006, that EBMUD inadvertently omitted notifying our neighborhood that our streets (Route B) are being considered as one of the construction access route for the new reservoir. RSY-1

The thought of heavy construction vehicles, reservoir's building equipment/supplies, construction workers' vehicles, etc. on our narrow streets for this possible two-year project is unacceptable to us. We would be very concerned for the safety of the five year old in our household and other young children in our neighborhood going out to the front of the house to bike, play, or walk to and from school because of the dangers that will be imposed upon them on a daily basis from the construction trucks and other vehicle traffic. RSY-2

The Sugarloaf Streets are private roads and our neighborhood is responsible for the maintenances of its streets. The constant construction traffic, estimated at over 170 vehicles per day, comprising of heavy construction trucks, vehicles, etc., over a possible two-year span, will eventually cause premature wear and tear and damages to our roads. Along with this, the safety concerns for all the neighborhood children, the neighborhood's ingress and egress to and from work, our narrow streets will not be able to accommodate this nightmarish construction truck traffic situation. RSY-3

In addition to the above, environmentally, we cannot tolerate the fact that our clean and peaceful ambience of this upscale neighborhood will be disrupted by the noise, dust and debris from the construction traffic. RSY-4

Please let it be known that as part of the Sugarloaf residence, we hereby deny any and all permission for construction access to our streets (Route B) now and in the future. RSY-5

Yours very truly,

Richard & Susan Yau
Owners
11 Sugarloaf Terrace
Alamo, CA 94507
(925) 935-6853

2.91 Richard and Susan Yau

Please note that the New Leland Pressure Zone Reservoir is examined at program level of detail in the WTTIP EIR. EBMUD is committed to engaging in a project-level EIR at an appropriate date in the future. Refer to Section 2.1.6, Master Response on the New Leland Pressure Zone Reservoir Alternatives, for more information.

RSY-1 The comment notes that EBMUD failed to directly notify Sugarloaf area residents of the public meetings for the proposed Leland Pressure Zone Reservoir Project.

EBMUD acknowledges that the Sugarloaf area residents were not individually notified of the public meeting for the proposed Leland Pressure Zone Reservoir Project, along with many other landowners, and regrets that this occurred. After this lack of individual notice was discovered, a letter describing the proposed project was sent to the Sugarloaf area residents on August 24, 2006**.** Although it is not required by CEQA, EBMUD endeavors to individually notify landowners directly impacted by District projects where possible. EBMUD places great value on community involvement.

RSY-2 The commenter indicates that the Sugarloaf neighborhood roads are private roads unfit for use as access routes for construction of the New Leland Pressure Zone Reservoir in accordance with Option B (DEIR p. 2-86). The comment also notes that construction impacts would result in premature wear on road surfaces and for these reasons says that permission for construction access will be denied.

The New Leland Pressure Zone Reservoir is discussed at a program level of analysis in the DEIR (see Table S-2, DEIR p. S-5). The reservoir construction and the associated construction access routes will be analyzed in-depth subsequent in a later project-level EIR. EBMUD will consider these comments indicating that Option B may not be a feasible access route to the preferred reservoir site as part of the analysis in that EIR.

RSY-3 See **Response RSY-2**.

RSY-4 See **Responses RSY-2** and **DCAY-5**.

RSY-5 See **Response RSY-2**.

Stacey Bradbury
1443 Blvd Way
Walnut Creek, Ca 94595

9-14-06

Comment Letter SB

RECEIVED
SEP 15 2006
WATER SERVICE PLANNING

Dear Ms. Gavadia,

This is regarding the EBMUD project on Olympia Blvd in Walnut Creek. Please; I am a resident of Saranap, and have been for most of my 50 years of life. I do not want the proposed pumping station to be located near Freemen Rd, as recently proposed. The destruction of one several beautiful oak trees is my main concern. And, as I witnessed last year next door to me, a 300 yr old oak tree can be destroyed, though a slow destruction, however destroyed nonetheless, by digging around the root structure. It had to be removed after 300 years simply because the home had been built too close to it. Please consider another site. SB-1

Thank you.

Stacey Bradbury
1443 Boulevard Way SB-2

2.92 Stacy Bradbury

SB-1 EBMUD staff is not recommending selection of the Tice Pumping Plant alternative site. However, approval of WTTIP projects and project locations is at the discretion of the EBMUD Board of Directors. See **Response AH-2** regarding potential damage to protected trees.

SB-2 See **Response AH-2** regarding impacts to oak trees. EBMUD staff is not recommending selection of the Tice Pumping Plant alternative site. However, approval of WTTIP projects and project locations is at the discretion of the Board of Directors.

Comment Letter SD

Sept 1, 2006

WATER DISTRIBUTION
SEP 11 2006
PLANNING DIVISION

Dear Judith Zavadil,

I reside at 33 Lombardy Lane in Sleepy Hollow. I am absolutely opposed and enraged that anyone would propose putting a water pumping station in this beautiful residential neighborhood of million dollar plus homes. Who in the world would want a pumping station across the street or down the road from them. I bet even they wouldn't! So find another spot for your station (one away from people's homes) and leave this area alone!

Please come to your senses!

Sandra L. Denny

SD-1

2.93 Sandra Denny

SD-1 Please refer to Section 2.1.4, Master Response on the Need for and Alternatives to the Happy Valley Pumping Plant and Pipeline. The commenter's objection to the DEIR Proposed Happy Valley Pumping Plant site is acknowledged. Please note that District staff is recommending that the Board of Directors approve the alternative site for the Happy Valley Pumping Plant (on Miner Road).

Comment Letter SJ

From: Susan JunFish [mailto:junfishPfSE@hotmail.com]
Sent: Thursday, August 10, 2006 6:55 AM
To: Coleman, John; Harlow, Nora
Cc: Harlow, Nora
Subject: new reservoir

Dear Mr. Coleman and Ms. Harlow:

I am writing to you in regards to my concern of EBMUD's decision to build the new reservoir adjacent to the Rim trail at Lafayette Reservoir. My understanding is that there are other locations that would impose less environmental impact. I do not understand why this location was chosen. I'm primarily concerned about the numerous impacts to wildlife in that area. I found out about this after the July 13th information meeting so I apologize that I am not as apprised as I could be. I believe all communities, including the wealthier, need to make some compromises and assist the projects for the larger community. My concern is not a "Not in My Backyard issue", but one of advocating for the most stable location that also imposes the least environmental impact. SJ-1

Yours,
Susan JunFish, MPH
Director, Parents for a Safer Environment

2.94 Susan JunFish

SJ-1 After revisiting potential reservoir layout designs at the preferred site, EBMUD is proposing to move the reservoir approximately 120 feet north and to use a temporary retaining wall during construction to minimize the number of large diameter trees impacted by the new facility. Refer to Section 3.3 indicating changes to the Highland Reservoir site evaluations.

DEIR p. 6-62, discusses the nine other potential sites for the Highland Reservoir. The nine sites were screened against five criteria (operational, implementation, environmental, construction, and cost). The preferred alternative was identified in the DEIR determined to best meet these criteria.

In addition, DEIR p. 6-18 evaluates constructing the Highland Reservoir at a site north of the proposed site to avoid impacts to the grove of large-diameter valley and coast live oaks. Table 6-3 indicates the severity and magnitude of impacts associated with this alternative site relative to impacts of the proposed project. Overall, there would be a tradeoff between impacts to biological resources and impacts to visual quality.

Comment Letter SMR

From: Sallyr157@comcast.net [mailto:Sallyr157@comcast.net]
Sent: Friday, July 14, 2006 2:36 PM
To: Harlow, Nora
Subject:

EBMUD Community Affairs Office; I am writing this to register my opposition to building a pumping station on Lombardy Lane. I believe that the noise, traffic congestion,unsightliness of such a facility,will have a serious negative effect on our quality of life and property value in Sleepy Hollow. I also believe that tearing up Miner Rd and Lombardy Lane could result in a terrible catastrophy, In case of fire, earthquake or other disaster .That is because LL and Miner Rkd are very narrow, two lane roadswhich already carry too much traffic and shutting even one for any extended period could result in a tragedy because we the unable to get out of SH or Orinda Downs with the road all blocked up. We have lived in SH since 1964 and have seen houses burned to the ground because the Fire Trucks were unable to get through. Please reconsider putting a pumping station in Sleepy Hollow it would have ! a serio us effect on the quiet and beauty we so enjoy. Sincerely, Sally and Michael Rubinstein 157 Lombardy Lane Phone 925-254-8743

SMR-1

SMR-2

2.95 Sally and Michael Rubinstein

SMR-1 Please note that District staff is recommending that the Board of Directors approve the alternative site for the Happy Valley Pumping Plant (on Miner Road), after discussions with the owner of this parcel and consideration of other information. Regarding comments on quality of life and property values, refer to Section 2.1.5, Master Response on Social and Economic Costs.

SMR-2 Section 3.8 of the DEIR, Traffic and Circulation, describes the projected traffic, the disruption of traffic flows and street operations (including road closures and pipeline construction), and other potential impacts due to construction activities. Access disruption to land uses and streets for both general traffic and emergency vehicles during WTTIP construction is analyzed in the DEIR under Impact 3.8-5. As stipulated in Measure 3.8-1, access for emergency vehicles would be maintained at all times, and owners or administrators of sensitive land uses such as hospitals will be notified in advance of the timing, location, and duration of construction activities and the locations of detours and lane closures. As described on DEIR p. 3.8-21, for Lombardy Lane between Miner Road and Van Ripper Lane, detour routing is available via Upper Happy Valley Road, Happy Valley Road, Sundown Terrace, and Dalewood Drive. In addition, for Miner Road between Oak Arbor Road and Lombardy Lane, detour routing is available via St. Stephens Drive, Via Las Cruces, Honey Hill Road, and Miner Road.

Comment Letter SMR1

Michael and Sally Rubinstein
157 Lombardy Lane
Orinda California, 94563
Email: www miker157@aol.com
www sallyr157@comcast.net
Phone: 925 254 4679
Fax: 925 254 4965

9-14-06
East Bay Municipal Utility District
c/o Judy Zavadil, Senior Project Manager
P.O Box 24055,MS701
Oakland, California 94623-1055

Re: Environmental Impact Report for Water Treatment and Transmission Improvement Project

This letter is written in response to EBMUD's request for comment on Draft Environmental Impact Report (hereafter referred to as DEIR).

In reviewing the DEIR my wife and I find much fault with both the DEIR and the proposed pumping plant on Miner/Lombardy lane as described in the DEIR: SMR1-1

The DEIR does not provide an adequate explanation as to why this project and its purported improvements are necessary. It makes mention of meeting future requirements and expanded population growth which it bases on vague and inadequate data. SMR1-2 **It does not provide any real alternatives to this project such as new technologies that would mitigate or even possibly eliminate the need for this project. Finally as written this proposal fails to disclose or analyze the significant environmental impacts this project imposes and it does not provide adequate mitigation for those impacts as defined by the minimum " CEQA " standards for environmental impacts.** SMR1-3

With regard to the pumping station referred to as "Happy Valley" in the DEIR, which is actually Lombardy Lane and Miner road, this too needs to be reviewed for other alternatives, ones that will not so dangerously impact this heavily populated residential neighborhood both short and long term. SMR1-4 **Further the DEIR does not address cumulative noise impacts as required by CEQA in this location,** SMR1-5 **nor does it address the impact of removing old Trees or the impact on wildlife in the area as required by CEQA.** SMR1-6

The DEIR imposes 90 percent of the burden for supplying increased capacity to the areas water purification and distribution system on Orinda and its citizens, while providing minimal additional benefit to those who will bear this burden. This is in itself is unfair and other alternatives which are not addressed in this proposal need to be investigated to mitigate this injustice. SMR1-7

This proposal as written is ambiguous by design or ineptitude, making it very difficult if not impossible to assess many of the issues the DEIR attempts to address. SMR1-8 **In fact this DEIR is a flawed concept that should be shelved until a valid study of the need for additional water purification, distribution and storage capacity for Orinda/Lafayette and the surrounding areas is done. Further that plan if such capacity is shown to be necessary must fairly distribute the burden of these expansions to those whom the plan would benefit.** SMR1-9

Thank you for your consideration

Sincerely,

Michael Rubinstein Sally Rubinstein

Michael and Sally Rubinstein

2.96 Sally and Michael Rubinstein

SMR1-1 Refer to Section 2.1.4, Master Response on the Need for and Alternatives to the Happy Valley Pumping Plant and Pipeline, for an expanded discussion of the need for this facility.

SMR1-2 Refer to Section 2.1.4, Master Response on the Need for and Alternatives to the Happy Valley Pumping Plant and Pipeline, for an expanded discussion of the need for this facility and to **Response ORIN-2**.

SMR1-3 The DEIR evaluates the potential for approximately 60 environmental impacts to result from implementation of the proposed Happy Valley Pumping Plant and Pipeline project. Chapter 3 of the DEIR discusses those impacts and the mitigation measures identified to reduce them. They are summarized in Tables S-5 and S-10 of the DEIR.

SMR1-4 Please note that District staff is recommending that the Board of Directors approve the alternative site for the Happy Valley Pumping Plant (on Miner Road). For more information on alternatives considered, refer to DEIR p. 6-61 and Section 2.1.4, Master Response on the Need for and Alternatives to the Happy Valley Pumping Plant and Pipeline.

SMR1-5 See **Response RCW1-3** for a discussion of combined or cumulative pumping plant noise. Cumulative noise impacts are discussed in Chapter 5 of the DEIR. There are two discussions: Section 5.2, evaluates collective and overlapping impacts associated with construction and operation of all WTTIP facilities; and Section 5.3, identifies cumulative impacts associated with construction and operation of all WTTIP facilities in combination with other planned infrastructure projects (EBMUD as well as other service districts), local jurisdictions (Lafayette, Moraga, Orinda, Walnut Creek, Pleasant Hill, San Pablo, Richmond, Oakland, and Contra Costa County) and other agencies (Caltrans).

SMR1-6 The DEIR addresses the potential impacts of tree removal, as well as the impacts on wildlife that could result from construction of the Happy Valley Pumping Plant and Pipeline project. See Section 3.6, Biological Resources, DEIR pp. 3.6-24 through 3.6-68. Table 3.6-3 (DEIR p. 3.6-25) shows that the site may have impacts on protected trees, streams and riparian habitat, special-status birds, bats, and the San Francisco dusky-footed woodrat. Impacts to common wildlife are also discussed, but are not considered significant in this EIR. Table 3.6-4 summarizes impacts to protected trees and shows the total number of trees, as well as the number of protected trees, that are estimated to be removed or damaged as a result of construction at this site (including the associated pipeline).

SMR1-7 Refer to Section 2.1.2, Master Response on Project Benefits to Orinda. Regarding analysis of other alternatives, refer to **Response ORIN-115**.

SMR1-8 The DEIR is necessarily complex because the WTTIP projects are complex and numerous. The organization of the DEIR project description and the need for cross-referencing reflects a balancing of CEQA directives to be concise and avoid redundancies while meeting the requirements specified in CEQA Guidelines Section 15124 (contents of a project description). The commenter is referred to **Response SMR1-3** regarding the assertion that the DEIR is flawed.

SMR1-9 Refer to Section 2.1.2, Master Response on Benefits to Orinda.

Comment Letter SP

Dear Judy Zavadil, Project Manage September 4, 2006

I would like to respond to EBMUD's proposal to construct the Tice Pumping Facility at the alternate side number 2 on the south side of Olympia Blvd. I live about 300 yards SSW of this site so I have a particular interest in any minimizing any negative short term and long term impacts on the neighborhood as a result of this proposed facility. SP-1

This response is also motivated to help EBMUD continue to provide the very best technical and economic solutions so that it may provide quality water to its customers in the future as it has done for so many years. SP-2

1. The fundamental problem to be address by the Tice Pump Facility, as noted in the proposal, stems from the fact that Tice Reservoir is at a relatively low elevation. Would not a pressure boost pump located at this Reservoir have the effect of increasing the elevation or head of this tank? Would this not be a simpler solution and provide increased the tank's water exchange volumes and provide the necessary pressure and flow volumes to customers within the existing Colorado Pressure Zone? By locating this presumed smaller boost pressure pump plant next to the Tice Reservoir on existing EBMUD-owned property would be a much less expensive and a quicker solution, rather than construct a Tice Pumping Plant on Olympic Blvd and 24 inch pipe down Boulevard Way. This smaller faculty could be sited on either the North or East sides of the Tice Reservoir tank. SP-3
It would have minimal impact on the neighborhood, as the site is remote and homes are at some distance. Perhaps further hydraulic simulations would show that this solution would be good enough to allow the Tice Reservoir to be used more effectively. This solution would also eliminate the complication of dividing up the Colorado Pressure Zone into two separate pressure zones. SP-4
Being a smaller pump faculty it would have a more cost-effective reduce energy use. Greater energy saving could be achieved by making use of newly developed high efficient centrifugal pumps combined with very energy efficient electronically adjustable speed electric motor systems. SP-5
If needed, additional pumping capability could be added to the small pump facility located at the corner of Olympic Blvd. and Reliez Station road to increase pressure and flow to that section of the Colorado Pressure Zone served by these pumps. SP-6
Overall, this solution might be the most cost effective and simplest to implement. SP-7

2. If the above solution is not feasible I think site on the North side of Olympic to be better than to the proposed pumping plant on the alternate site number 2 on the Southside of Olympic. This North side of Olympic site is a larger flat lot. It would have less impact on the neighborhood and would eliminate the complication of digging up and crossing Olympic Blvd. I think the property might be easier to obtain. SP-8

3. However, the site on the vacant commercial lot on the Southeast corner of Olympic and Tice Valley road, I feel, however, is the best location for this proposed pump plant, assuming by first suggestion of the is not possible. First, the corner site is also flat and larger and would have less impact in the neighborhood and travel routes. It has easy access off Tice Valley road. It is zoned so that a gas station was once located on the lot. Presently it is used a parking lot with a few cars using it. Furthermore, there is a vacant SP-9

area on the North East corner of Olympic and Boulevard Way that will allow easier installation of the Gate Valve on the existing water line. SP-9

4. In all cases a belowground pressure pump building rather than an above-ground ugly, bunker style building should be built. It would have a much lower visual and noise impact on the residential neighborhood. It would also be less visible to vehicle and trail users. It would be similar to the other proposed below-ground Pumping Plants in the proposal. The present aboveground bunker style pump building will have the effect of lowering property value in the neighborhood. This is a major concern and should be addressed in the impact report part of the improvement program. SP-10 SP-11

5. To further make my point that the South of Olympic site for the pumping plant has addition problems not considered in the EBMUD report I've made the following list: SP-12

1. First, there have being discussions within Contra Costa County for this location to be developed as a terminal rest area for Olympic trail users. This trail is part of the East Bay Regional Park trail system.
2. Construction of the pipelines across Olympic Blvd at this location is problematic and have not been fully disclosed in the report.
    a. Olympia Blvd is a main artery for only EBMUD's own water pipe but also
        i. Main sprint fiber optic cable,
        ii. PG&E main natural gas line.
        iii. Two large diameter concrete storm drains. These also cross Olympic so will impact the installation of new 24 inch pipe.
        iv. Sewer pipe.

    SP-13

    b. This location is a high priority utilities area as classified by Caltrans Project Development Procedures Manual due to the large high-pressure natural gas line and the fiber optic cable. SP-14
3. Olympic is a high volume traffic corridor for vehicle, bike and recreational trail users with no detour roads existing. It is in effect a choke point SP-15
4. The site is next to an unstable hillside. SP-16
5. The lot is relatively small for the proposed pump building with no extra area to spare for future expansion or uses. SP-17
6. Crossing this site are signification overhead utilities – electrical and communication cables. In the EBMUD report in Table 3.12-4 listing underground utilities is incomplete. No accounting of overheat utilities is present in the report with respect to the Tice pumping plant. SP-18
7. Country Bus 206 route would be eliminated during construction and there is no other possible routing of the bus line that services Lafayette BART and local schools to Rossmoor shopping center. It is not possible to get to Tice Blvd from the East on Olympic without using Freeway 24 and 680 or going through downtown Walnut Creek, SP-19
8. This site floods with a foot of water during winter rains. SP-20
9. Construction at this site would have significance interference with fire protection and hospital transporting to Kaiser and Mount Diablo Hospitals from the West SP-21

10. Construction noise impact on neighbors would be high and this is on top of the fact that the neighborhood has already had to content with 5 years of construction noise and disruption by the hillside housing development on King Dr. SP-22
11. On this site there is natural gas power backup generator and PG&E equipment for the overhead communication cable. SP-23

I hope this response to your request for input will be useful. We all need clean water delivered to our homes and businesses and EBMUD have done an excellent job of providing this to its customers over the years. Improvements to your water system are necessary to continue this great service. I hope my comments will help you engineers design the most cost effective and minimally environmental impact improvements to your water system with respect to the Colorado Pressure Zone and the proposed Tice Pump Plant. SP-24

Please call me if I can be of any assistance

.

Sincerely,

Stephen Phillips
925-933-8546

2.97 Stephen Phillips

SP-1 Comment noted.

SP-2 EBMUD appreciates your thoughtful and constructive input.

SP-3 For reasons described below, the solution suggested by the commenter (a pressure boost pump) could alleviate reservoir fluctuation problems in the winter, but would not bring the water supply needed into the pressure zone in the summer and, consequently, EBMUD prefers the solution presented in the DEIR.

The Tice Reservoir supplies water to the southeast portion of the Colorados Pressure Zone (primarily the Rossmoor area). This area, referred to as the Tice Subzone, also supplies water to the higher elevation Bryant Pressure Zone (see Figure 2-3, DEIR p. 2-11) via the Castle Hill Pumping Plant. In the summer, when demands are high, the Tice Reservoir cannot get enough water due to competing demands from the Colorados and Bryant Pressure Zones. Even if the Colorados Pressure Zone pumping plants operate all day at full capacity, the Tice Reservoir does not recover to its full capacity.

During the normally low winter demand period, the opposite effect occurs. The Tice Reservoir does not fluctuate (i.e., drain) very well because its overflow elevation is the lowest in the pressure zone; this problem could lead to poor water quality caused by decreases in residual disinfectant levels (see DEIR p. 2-21, first paragraph, for more information). The current solution to this dilemma is to reduce the flow of water to the Tice Subzone by temporarily closing off the 20-inch main pipeline at the Olympic Boulevard/ Tice Valley Boulevard intersection (leaving only a smaller 12-inch pipeline feed) and operating Castle Hill pumping plant as much as possible. This process results in a limited volume of water being available for the Tice Reservoir (i.e. mirroring the summer conditions), causing it to fluctuate more frequently. However, EBMUD does not wish to operate the system in this abnormal mode on an annual basis as it is labor-intensive and does not solve the warm-weather problem.

EBMUD's proposed solution for the summer and winter problems is to isolate the Tice Subzone from the Colorados Pressure Zone by installing a permanent rate control valve on the 20-inch main pipeline in Olympic Boulevard. As a result, the Tice Reservoir would be the only water source for the Tice Subzone and the Castle Hill Pumping Plant; reservoir water levels would then fluctuate during winter demands. However, this approach also isolates the Tice Subzone from the pumping plants in the Colorados Pressure Zone, meaning that a new pumping plant (the Tice Pumping Plant) must be constructed to meet the high summer demands, and a new pipeline (the pipeline in Boulevard Way) must be constructed to supply the pumping plant lower elevation from the Leland Pressure Zone.

SP-4 Please see previous response.

SP-5 Please see **Response SP-3**. A variable speed pump was not determined to be preferable for this use.

SP-6 EBMUD is not aware of the small pump facility at the corner of Olympic Boulevard and Reliez Station Road. However, this location falls in the middle of the Colorados Pressure Zone, and an increase in pumping capacity in this area would not significantly benefit the hydraulic needs in the Tice Subzone.

SP-7 Please see **Response SP-6**.

SP-8 As part of the CEQA analysis on this complex project, EBMUD must balance a variety of competing considerations. EBMUD staff is recommending the proposed site south side of Olympic Boulevard for approval by the EBMUD Board of Directors because it has fewer nearby residences that would be directly affected by the construction and operation of the plant than the alternative site north of Olympic Boulevard.

SP-9 See **Response SP-8**, above. The suggested site was considered as a potential site and rejected because it would permanently displace parking for the commercial area (DEIR p. 6-65).

SP-10 EBMUD does not construct fully buried pumping plants due to concerns regarding surface water drainage. Generally, buried pumping plants extend above grade approximately two to four feet and have a unique set of visual impacts. However, to address the commenter's concern, a portion of the pumping plant (5-10 feet) will be constructed below ground to reduce visual impacts. In addition, EBMUD will implement Measures 3.3-2a through 3.3-2c, which include landscaping, and architectural treatments and design elements that will blend into the surrounding neighborhood. For examples of EBMUD pumping plants designed to be consistent with residential neighborhoods refer to **Response CN-3** and Figure 9, in Section 2.27 of this Response to Comments document.

SP-11 See previous response. Visual impacts are addressed in Section 3.3 of the DEIR. Refer also to Section 2.1.5, Master Response on Social and Economic Costs.

SP-12 Contra Costa County, along with a local trails improvement organization, has proposed improvements to the Olympic Boulevard paved trail in the vicinity of the proposed Tice Pumping Plant. EBMUD has met with Contra Costa County and the Saranap Olympic Pathway Group to coordinate site planning and landscaping of the proposed pumping plant use of the Olympic Boulevard paved trail and implementation of the proposed improvements would not be impeded by the proposed Tice Pumping Plant. However, construction noise, dust, and traffic could disrupt use of the trail during the one- to two-year construction period. EBMUD will continue to coordinate with applicable agencies and interested members of the public during final site development and will retain existing recreation uses in the vicinity of the Tice Pumping Plant.

SP-13 All of the utilities identified in this comment are listed in Table 3.12-4 (DEIR p. 3.12-10) except for the fiber optic cable. Refer to Section 3.2, Text Revisions, in this Response to Comments document for text change to Table 3.12-4. Measures 3.12-1a through 3.12-1h (DEIR pp. 3.12-6 through 3.12-17) to address the potential for pipeline construction to interfere with existing utilities.

SP-14 This location was identified as a high priority utility on DEIR p. 3.12-10.

SP-15 See **Response AH-3** regarding the DEIR's analysis of potential traffic and circulation impacts (and associated mitigation measures), and the use of Olympic Boulevard, associated with construction of the Tice Pumping Plant (both the proposed site and alternative site).

SP-16 Impact 3.4-1 in the DEIR, which addresses slope stability, identifies evidence of slope instability for the hillside at the proposed Tice Pumping Plant site (DEIR p. 3.4-25). Implementation of Measure 3.4-1 requiring site-specific geotechnical evaluations prior to project construction would reduce the impacts at the site to a less-than-significant level.

SP-17 As shown on Map D-TICEPP-1 in the DEIR, the proposed site provides sufficient room for the pumping plant, parking area, and appurtenances (the pumping plant itself would be 30 feet by 70 feet). The horizon year for the Tice Pumping Plant is 2030; EBMUD does not anticipate needing to physically expand the Tice Pumping Plant beyond the dimensions shown on Map D-TICEPP-1. (Note also that pumping plant capacity often can be expanded by switching out pumps with higher capacity units, as is the case with the existing Fay Hill Pumping Plant described in the DEIR.)

SP-18 Table 3.12-4 is a listing of *underground* utilities and therefore would not have included overhead utilities. DEIR p. 3.12-15 describes overhead utilities located at the Tice Pumping Plant site as follows "Project facilities would require the relocation of a PG&E meter, a transformer, and an electrical pole on the proposed site."

SP-19 The County Connection Bus 206 route would not be eliminated during construction of the Tice facilities. As described under Impact 3.8-6 (DEIR pp. 3.8-21 and 3.8-22), pipeline construction within or across streets (including Olympic Boulevard), and temporary reduction in travel lanes, could result in delays for County Connection transit service in the vicinity of the worksites. But while buses on Route 206 could be slowed by project construction, trucks, and pipeline installation on Olympic Boulevard, two-way traffic flow (including service on Route 206) would be maintained (one lane in each direction), as indicated in Table 3.8-6 (DEIR p. 3.8-17). Measure 3.8-1 requires coordination with the County Connection so the transit provider can temporarily relocate bus stops in work zones as it deems necessary.

SP-20 As noted on DEIR p. 6, the proposed Tice Pumping Plant site is located adjacent to a zone identified by the Federal Emergency Management Agency as a moderate or

minimal flood hazard zone (Zone X). The pumping plant would be designed to withstand flood flows and would not significantly impeded floodwater flows; erosion and impacts related to flooding would be less than significant.

SP-21 Two-way traffic flow would be maintained on Olympic Boulevard (as indicated in Table 3.8-6, DEIR p. 3.8-17), and the effect on the movement of emergency vehicles including fire trucks and ambulances would be less than significant. Measure 3.8-1 requires coordination with facility owners or administrators of sensitive land uses such as police and fire stations, transit stations, hospitals, and schools, including advance notification of the timing, location, and duration of construction and the locations of detours and lane closures.

SP-22 For the preferred site (south side of Olympic Boulevard), the construction noise impacts are quantified in Table 3.10-5 on DEIR p. 3.10-14 and discussed on page DEIR p. 3.10-20. Operational noise impacts are quantified in Table 3.10-8 (DEIR p. 3.10-42) and discussed on DEIR p. 3.10-47. See **Response DGB-3** for a discussion of construction-related and operational noise impacts at the alternative site on the north side of Olympic Boulevard.

SP-23 See **Response SP-18**.

SP-24 Comment noted.

Comment Letter TB

WATER DISTRIBUTION
JUL 17 2006
PLANNING DIVISION

July 14, 2006

East Bay Municipal Utility District
Judy Zavadili, Project Manager
P O Box 24055 MS701
Oakland CA 94623-1055

Dear Ms. Zavadili and EBMUD in general:

I am shocked, appalled and upset that EBMUD is planning to destroy 30 oak trees along the Lafayette Reservoir Rim Trail. With development and Sudden Oak Disease, our California oak trees are under enough stress as it is but to have a water utility that conserves water shed to preserve the purity of our drinking water, cut down trees along the prettiest section of a popular trail is maddening and confusing. Swimming in the reservoirs is not permitted in drinking reservoirs but cutting down trees is allowed?

Some of these trees are over 100 years old and have withstood drought and flood with few landslides according to the article in the Times. Could this lack of landslide have anything to do with the size and quantity of these venerable trees? I have walked this trail hundreds of times over the years and I stop and greet these trees each time I climb up that hill. They are older than me and I hoped they would outlast me. TB-1

I hope the utility will reconsider the placement of the water tank purportedly to be built to increase water pressure in the west end of Lafayette. I think we owe more to the future of our watershed and planet for that matter.

Respectfully,

Terry Blair
P O Box 1635
Lafayette, CA 94549

2.98 Terry Blair

TB-1 The removal of a number of large oak trees at this site is recognized as a significant and unmitigable impact in the DEIR. EBMUD has explored a number of alternative locations for this proposed project component, both before and after publication of the DEIR. After revisiting potential reservoir layout designs at the preferred site, EBMUD is proposing to move the reservoir approximately 120 feet north and to use a temporary retaining wall during construction to minimize the number of large diameter trees impacted by the new facility. Refer to Section 3.3 of this Response to Comments document, which indicates changes to the Highland Reservoir site evaluations.

EBMUD

Water Treatment & Transmission Improvements Program
Draft Environmental Impact Report

Name: Tracy Broback

Address: 3304 Freeman Rd Walnut Creek CA 94595

Email: tbroback@yahoo.com

COMMENTS:

We are opposed to building a pumping station behind our neighbors houses on Freeman Rd. We located on this street because of the wooded shady nature of the setting. We do not want to impact the trees that contribute to our neighborhood nor do we need the night time noise of the plant.

TB1-1

TB1-2

TB1-3

Submit this form as you leave this meeting, mail or hand deliver the form to EBMUD at Mail Stop # 701, 375 Eleventh Street, Oakland, CA, 94607, or email comments to Judy Zavadil, Senior Project Manager, at wttip@ebmud.com.

NOTE: Comments on the Draft EIR must be received by EBMUD by September 18, 2006, at 4:30 pm. Comments should be in writing and include your name and address.

2.99 Tracy Broback

TB1-1 EBMUD staff is not recommending selection of the Tice Pumping Plant alternative site. However, approval of WTTIP projects and project locations is at the discretion of the EBMUD Board of Directors.

TB1-2 See **Response AH-2**.

TB1-3 The commenter's opposition to this alternative location for the Tice Pumping Plant is noted. District staff are not recommending this alternative site. This pumping plant will not be allowed to exceed the 45-dBA nighttime noise limit at the closest residential receptors. See **Response DGB-3** for more discussion.

Comment Letter TJ

-----Original Message-----
From: Coleman, John
Sent: Tuesday, July 25, 2006 12:33 PM
To: 'Toris A Jaeger'
Subject: RE: Highland Project

Toris -

Thank you for your comments. Please go to EBMUD's website and provide written comments on the EIR in reference to your concern. This will require that the District must consider all comments and reply back with an appropriate response.

John Coleman

-----Original Message-----
From: Toris A Jaeger [mailto:toris.jaeger@juno.com]
Sent: Thursday, July 13, 2006 10:19 PM
To: Coleman, John
Subject: Highland Project

Dear Mr. Coleman, was not able to attend meeting tonight but I want you to know that I believe the just thing to do is build water tank in an nonsensitive location. I am sure the citizens of Lafayette do not want their drinking water stored in a tank in a location that will cost the life of many precious Oak trees. They have a right to continue providing biodiversity to the area. They are also part of the natural heritage.
I
plead with you to
follow your Mater Plan to the letter then the architects will have to come up with a better plan. Toris

TJ-1

2.100 Toris Jaeger

TJ-1 See **Response SJ-1** regarding impacts to trees associated with the Highland Reservoir project, and Section 3.3 of this Response to Comments document regarding the Revised Highland Reservoir Site.

Comment Letter TJK

CERTIFIED MAIL
RETURN RECEIPT

August 25, 2006

WATER DISTRIBUTION
AUG 28 2006
PLANNING DIVISION

Ms Judy Zavadil
Senior Project Manager
EBMUD
375 Eleventh Street, MS 701
Oakland, CA 94607-4240

Re: 9 Mountain View Lane, Lafayette
Water Treatment & Transmission Improvements Program
Draft Environmental Impact Report

Dear Ms. Zavadil:

Our formal comments regarding the proposed EBMUD project and the draft EIR issued June 2006 are as follows.

We are specifically concerned with the planned Moraga Pipeline portion that will cross a portion of our property as indicated on the enclosed map. Since this section will directly affect us as well as our property and views, we ask the following considerations: TJK-1

1. To access the proposed project on our property EBMUD will have to cut through a portion of the existing fencing for ingress and egress at two locations. We also noticed in our recent review of the Moraga pipeline project that there are several locations along the fence that have either been broken down or worn out over the years. We request that EBMUD repair and replace the fence as soon as work on our property is completed and that the fence repair include those other areas near to the project so that no additional work and inconvenience will need to be done after the pipeline project is complete on our property. TJK-2

2. There are two large concrete valve boxes on our property that are currently well hidden by existing trees, brush, and vegetation. We believe that almost all of that coverage will be removed for the Moraga pipeline. Because that coverage has taken years to mature and to hide those boxes, we request that EBMUD mitigate the unsightly exposure by planting new vegetation strategically so that the boxes will again be hidden by vegetation and that the vegetation include fast growing native species. TJK-3

3. We noticed that the existing oak trees along the easement on our property are likely to be removed in order to install the additional pipe. We request that EBMUD make every effort to save these trees rather than remove them. If those trees cannot be saved, we TJK-4

request that replacement trees be planted according to the EBMUD EIR suggestion of three new trees to every one tree removed in locations as near as possible to the places where the trees were removed. We understand that native oak trees take a long time to grow so planting a small new tree is not really an adequate replacement for a tree that is nearing 50 years old. TJK-4

4. We request to be notified prior to the date work will begin on our property and that we be provided with a schedule showing estimated completion date as well. We ask that once work begins on our property that it be completed as quickly as possible. TJK-5

5. We request that any tree scheduled to be removed from our property or on the EBMUD easement be physically marked well in advance of its planned removal and that we be notified when a tree is marked so we can verify that each tree is within the EBMUD easement and subject to the EIR. TJK-6

6. We request that EBMUD return the property to its natural state, consistent with the existing terrain, and install new trees and shrubs as soon as feasible to assure proper conditions for growth or within 30 days of the completion of laying the new pipe through our property. TJK-7

7. Some of the terrain on our property is quite steep, including the easement for the pipeline improvements. Because of this, we request that any landslide caused by this project installation within five years of completion date be fully repaired by EBMUD or its contractor at no cost to us. TJK-8

8. We request that open trenches and hazardous equipment or materials be left safely covered after each day's work to prevent wildlife or reservoir visitors from accident exposure. TJK-9

9. We request that signage be placed during the project at each fence opening onto our property designating our property to be private and that trespassing is not permitted. TJK-10

10. With respect to the overall project, we ask that EBMUD minimize the removal of mature trees as the removal of the trees reduces the scenic enjoyment of all visitors to the Lafayette Reservoir Recreation area. To the extent that trees are removed, they should be replaced in the same or adjacent areas. We note that during the 19 years that we have lived on Mountain View Lane, EBMUD has removed numerous mature trees within the Lafayette Reservoir as well as the Sunset Reservoir Water Tank adjacent to our home and have not planted new trees anywhere that we could see. We ask that EBMUD be more diligent in replacing all the trees removed during the development of these water system improvements in locations near to the removals in order to restore the environment to its previous state. TJK-11

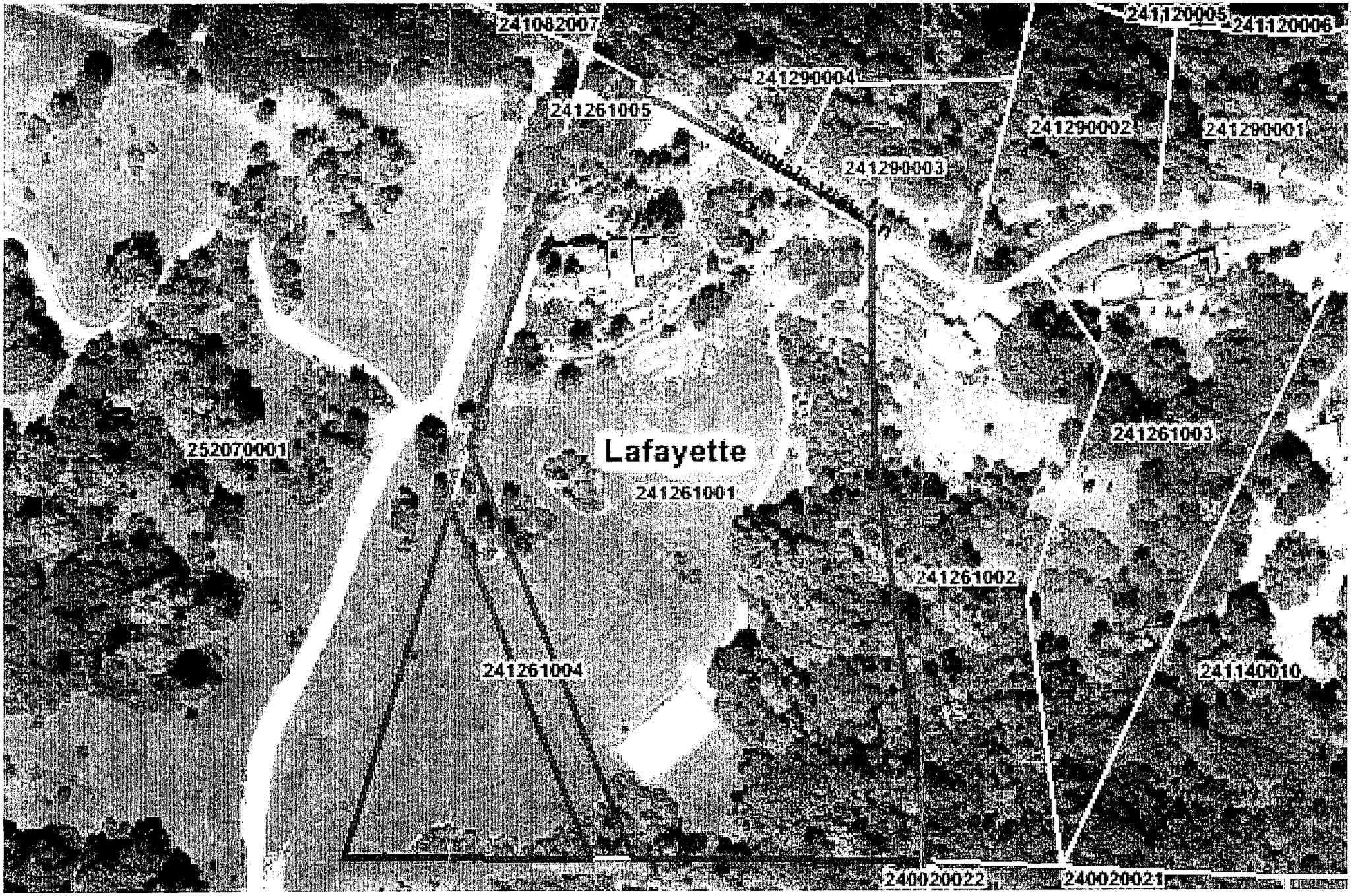
We are grateful for Timothy McGowan's time and assistance in helping us to understand the Moraga pipeline and its affect on our property. He was courteous, respectful, knowledgeable, well-prepared, and very helpful to us.

We appreciate the opportunity to comment on this EIR.

Sincerely,

Thomas P. and Jahanna M. Knight
9 Mountain View Lane
Lafayette, CA 94549
925-283-7172

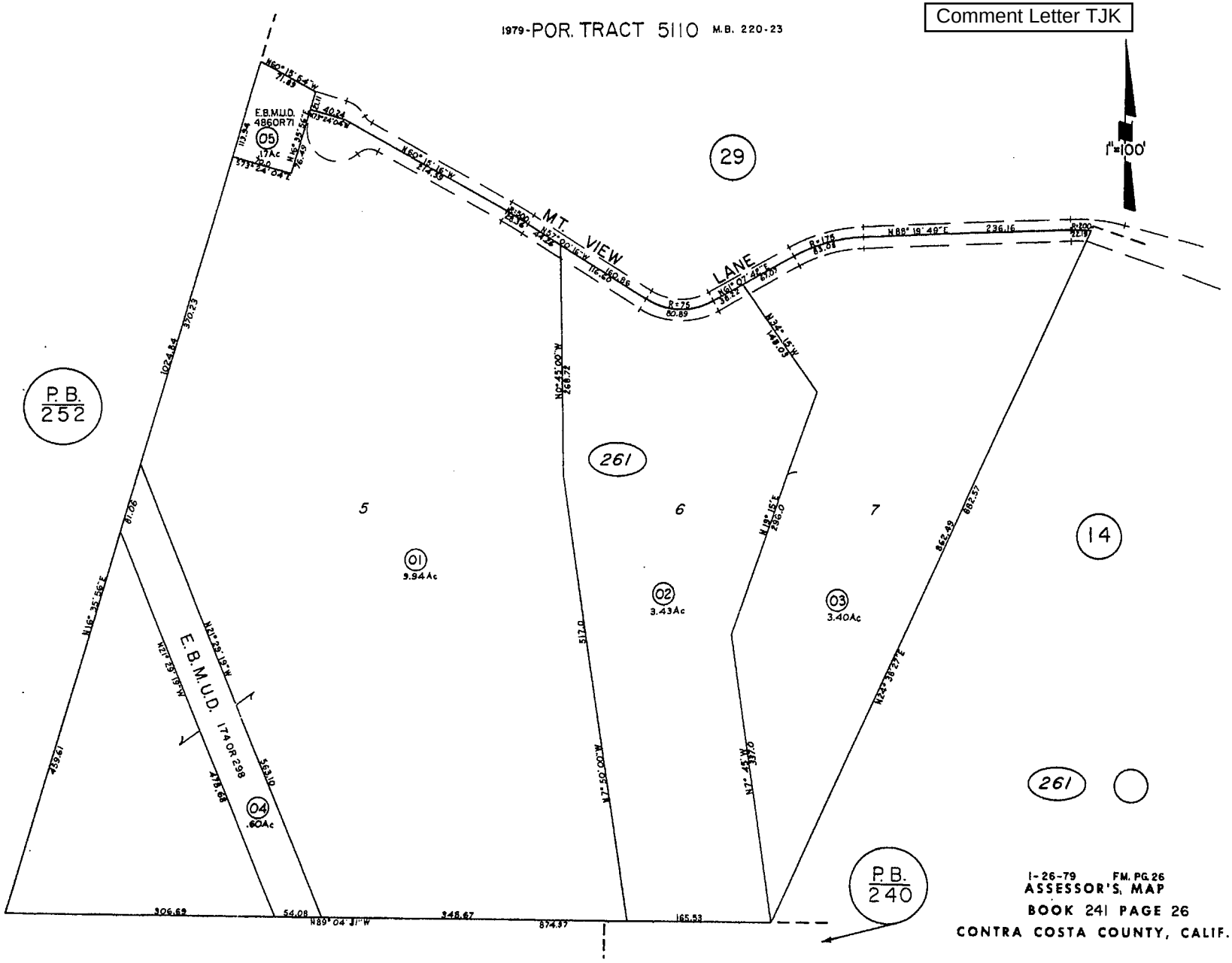
Enclosure



Source: www.camap.us/gis/
contra costa County

Comment Letter TJK

Comment Letter TJK



Source: The First American Corporation

2.101 Thomas and Jahanna Knight

TJK-1 Comment and enclosures noted.

TJK-2 EBMUD plans to stay within its property when installing the Moraga Road Pipeline. EBMUD will replace any fencing removed due to pipeline construction to pre-construction (or better) conditions, and EBMUD will repair the fence in the general area to the extent it is an EBMUD fence.

TJK-3 EBMUD will provide screening of these valve boxes if they are exposed during and as a result of the pipeline construction work. Replacement of trees along the Moraga Road Pipeline project is addressed by Measures 3.6-1a through 3.6-1d (DEIR p. 3.6-33).

TJK-4 Impact 3.6-1 in Section 3.6, Biological Resources, addresses impacts to oak trees for the Moraga Road Pipeline project (Table 3.6-4, DEIR pp. 3.6-28 and 3.6-33).

Throughout the CEQA review for the WTTIP project EBMUD has made efforts to avoid tree removal through site redesign and consideration of alternatives. Measure 3.6-1e specifically relates to the Moraga Pipeline, requiring that its alignment be refined during design, to the extent feasible and within hydraulic constraints, to avoid removal of protected trees. If the trees on the commenters' property are considered protected (i.e., oak trees), EBMUD will make every effort to avoid removing them. If it is necessary to remove them, EBMUD will replace them at the ratios specified in the DEIR. Site conditions warranting, and if necessary, replacement trees shall be placed as close as possible to where existing trees were located, though not over either the existing or new pipelines. See **Response TJK-7**. See **Response LAF-10** for clarification and specification of mitigation regarding replacement trees.

TJK-5 EBMUD will be installing the proposed pipeline on District property. Neighbors adjacent to pipeline work are typically notified by a mailer one to two months prior to commencement of construction work. The mailer provides a contact name for those seeking additional information regarding that project scope and timeline.

TJK-6 Trees that require removal will be marked 10 days in advance. Measure 3.6-1a requires that all trees for a project site or element be mapped before project activities begin. Trees to be removed will also be noted on the construction documents.

TJK-7 Pursuant to Measure 3.3-2b, the District will require that contractors restore disturbed areas along pipeline alignments to pre-project conditions. This will include replanting shrubs and trees. It is not possible to safely plant trees directly over a pipeline, but a setback will be established and trees will be planted outside the setback. The landscaping and tree planting will be the last task of the construction phase taking place in the Lafayette Recreation Area Open Space. The 30 days requested will likely not be feasible.

TJK-8 If a landslide (sloughing) occurs as a result of construction work and material sloughs onto the commenters' property, then EBMUD will remove this material from the property and take measures to repair the landslide to prevent future occurrences.

TJK-9 The DEIR analysis of impacts to biological resources focuses on special-status resources (e.g., threatened and endangered species). As stated on DEIR p. 3.6-23, the proposed project would not result in significant impacts to common plant and wildlife species in part because these species are, by definition, commonly occurring. Potential losses to common wildlife could result from implementation of the WTTIP. Construction of the Moraga Pipeline would result in some temporary displacement of wildlife, and there is always the possibility of mortality of common wildlife on any construction project in an area like the Lafayette Reservoir Recreation Area. Nonetheless, some measures to protect the public as well as special-status (i.e., protected) wildlife species also are expected to assist in restricting animal access to construction sites. For example, measures identified in Section 3.11 of the DEIR, Hazards and Hazardous Materials, require that hazardous materials used at construction sites be stored safely. Open trenches will be surrounded with caution tape at the end of each working day.

TJK-10 EBMUD will provide temporary construction fencing and signage at breeched fencing locations in order to reduce the risk of non- authorized personnel trespassing into EBMUD's property and subsequently the commenters' property.

TJK-11 Throughout the CEQA review for the WTTIP project, EBMUD has tried to avoid tree removal wherever possible through site redesign and consideration of alternatives. Measures 3.6-1a through 3.6-1e, which will be adopted as conditions of project approval, provide measures and methods to minimize impacts on trees. When tree replacement is necessary, and site conditions warrant, replacement trees shall be placed as close as possible to the original locations.

TODD SIMONSE

21 Layman Ct, Walnut Creek, CA 94596
510.292.0290

September 18, 2006

Judy Zavadil
Senior Project Manager
Water Distribution Planning Division
East Bay Municipal Utility District
375 Eleventh Street (Mail Slot #701)
Oakland, CA 94607-4240
WTTIP@EBMUD.com

The following comments are in response to the Draft Environmental Impact Report SCH # 2005092019 of June 2006 (EIR) that was written to assess the potential impacts of the Water Treatment and Transmission Improvements Program (WTTIP) proposed by East Bay Municipal Utility District (EBMUD). These comments are offered in three sections as follows; Section One: General comments concerning the EIR; Section Two: Comments specific to the New Leland Pressure Zone Reservoir Site Selection; Section Three Comments specific to the access routes identified for the "Preferred Site" for the New Leland Pressure Zone Reservoir Site

Section One General comments concerning the EIR

I believe that much time, effort and cost in both man-hours and public funds were expended in the preparation and publication of the document. I am also convinced that people who are experts in environmental regulations, public projects and the preparation of these types of documents were employed in creating the EIR. Further, I readily admit no such expertise in any of these areas however, my comments are provided as a private citizen who must gain information concerning the subject from the EIR.

There are several questions that strike me as a layman reading through the myriad pages of statements, tables, photographs, maps and verbiage of the document and attempting to make sense of it. First is the fact that so many seemingly disparate projects have been made the subject of a single document. Everything from Water treatment plant upgrades, transmission pipelines, replacement reservoirs, isolation valves are treated as a single project in the one EIR document. Some of the facilities and projects are combinations of more than one type; there are several pumping plants and pipelines taken together as they are at one location. In all by my count there are five Water Treatment Plants, six Pumping Plants, seven Reservoirs, twelve Pipelines (some are part of pumping plant or other projects), one set of Isolation Valves and one Aqueduct covered by this single document. If one is to consider all of the elements that are being evaluated in this one EIR, taking pumping stations as separate from the pipelines to be constructed to them, it is on the order of 32 different projects that are being evaluated in this one document. Note that the EIR states that there are five WTP's and 19 other projects. There are no less than five different towns or jurisdictions including Contra Costa County, Lafayette, Oakland, Orinda, Moraga, and Walnut Creek, all lumped together in this one document. TS-1

September 19, 2006

The EIR is voluminous to the point that it was broken in to three large volumes and distributed on a CD-rom. The EIR is so large and comprehensive that a large amount of time was spent during the July 20, 2006 neighborhood meeting on how to navigate the Adobe files on the CD-rom just to find relevant sections and read the EIR. TS-1

It is very difficult if not impossible to separate each element of the WTTIP project from the others in the EIR the way that it has been prepared. In fact when reading the EIR it might be easy to conclude that there are merely two alternatives, whether the Lafayette Water Treatment Plant is retained and upgraded or decommissioned (see page S-6 of the EIR). In actual point of fact there are many different alternatives for each individual project that is part of the overall WTTIP. In addition each element of the WTTIP will be distinct in its location, time frame for completion and impacts. Although it may have been convenient for EBMUD to treat all of the elements as part of one project I believe that it is improper and misleading to have grouped so many disparate, unique and individual project elements into this single EIR. TS-2

By grouping all of the individual elements of the WTTIP into one comprehensive EIR it has also made it difficult if not impossible to have meaningful public comment on some elements of the project. At one public comment meeting that I attended at Heather Farms Park on July 20, 2006 there were so many people with questions or comments about one element of the project that the EBMUD personnel who were conducting the meeting actually stated that they would take no further questions from any one concerning that element of the project until all other people present were first given the chance to speak about other elements. To be fair those of who were present at the meeting and not given the opportunity to voice our opinions or ask our questions did request and were granted a separate meeting in our neighborhood for the purpose of discussing our concerns, but this seems counter to the intent of holding public meetings concerning these types of projects. Other members of the community who do not live in our neighborhood but who may have been interested or gained useful information from the comments, questions or issues raised by those in our neighborhood were denied the chance to hear them. Also many of those such as myself, with concerns who made arrangements to attend the meeting in question who were not allowed to voice their concerns at that public meeting were unable to attend the subsequently scheduled neighborhood meeting. In the end the EIR comment period was extended for a period of 29 days. The extension of the comment period appears to have been done to placate those with questions and comments concerning elements of the project but it does nothing to help to educate either the public on EBMUD's plans or EBMUD on the concerns of the public. This is an additional reason why all of the elements of the WTTIP should not be the subject of one comprehensive EIR. TS-3

To further complicate matters for those members of the general public such as myself who are attempting to glean information from the EIR elements that are project level are grouped together with those that are program level. While this may at first appear to be a fine distinction it leads to great deal of confusion as those elements that are program level TS-4

are not dealt with in the same degree of detail as are those that are project level. I believe that the public would be better served if program level elements of the WTTIP were not included in this EIR as the level of evaluation and detail is less significant which is confusing and makes the EIR more difficult for the layman to understand. TS-4

It is my opinion that the subject EIR is defective in terms of meeting the statues and guidelines of the California Environmental Quality Act (CEQA) as there is not a discussion of a "no Project Alternative" for the individual elements of the WTTIP as described in ***Title 14. California Code of Regulations*** **Chapter 3: "Guidelines for Implementation of the California Environmental Quality Act;" Article 9 "Contents of Environmental Impact Reports;" Section 15126.6 "Consideration and Discussion of Alternatives to the Proposed Project."** I believe that each individual project that is part of the overall WTTIP should be evaluated in terms of the "no project alternative" and as such each should require its own individual EIR. The grouping of all of the individual elements of the WTTIP is an incorrect oversimplification of the project as the argument could well be made that some of the elements of the project could be performed while others could be revised or developed differently. As written the EIR lumps all of these projects together where they are each individual elements with their own unique locations, impacts, schedules and issues. TS-5

In the EIR Volume 2, Chapter 3, Section 3.2 "Land Use, Planning and Recreation," there are several items for which the EIR states that many of the impacts would be temporary, less-than-significant or have no impact. I feel that in many instances the EIR greatly understates the effects of these projects on the local communities. As a resident of Walnut Creek and witness to the pipeline construction that is taking place in the city which started in late 2002 and was supposed to have been completed in approximately two years, I can attest to the fact that project planning can and does greatly differ from the real world experience of the project itself. Four years later this project is still not completed. Of course this project had the misfortune to spark the worst petroleum pipeline disaster in the United States since 1986, resulting in the temporary suspension of work on the project. This mishap was neither planned for nor anticipated however, the fact remains that unplanned delays can and will occur on large-scale public works projects. I believe that the EIR should contain a section that addresses how the actual progress and performance of past projects has compared to the estimates and planning as published in the EIR's for those projects. It is all well and good to inform the public that there will be a temporary impact for the length of a construction project but when the actual duration of a project can sometimes become greater than the stated duration by two or three times it should be made part of the evaluation of that impact. TS-6

Some impacts are not mentioned at all. For example construction of the New Leland Pressure Zone Reservoir at the preferred Site-Number 3 on Map Appendix J-5 of Volume 3 of EIR-would result in the construction of the reservoir in close proximity to the top of a ridgeline in full view of vehicles traveling on I 680 an officially designated California scenic TS-7

highway. This would seem to be a significant visual impact of which there is no mention in the EIR. TS-7

In summation I have no doubt that an attempt was made for the EIR to be written in accordance with the statues and guidelines of the CEQA, a fact that is stated in EIR section S.1 Introduction. Further, aside from the omission of the discussion of a "no Project Alternative" for the individual elements of the WTTIP, the EIR may even meet the letter of the law however, the fact remains that the draft EIR is overly broad, general in nature, project impacts are understated and projects are not properly estimated in terms of real world performance and past experience. I believe that it would be in the interest of the public that the EIR be broken down in to more comprehensible and manageable documents and individual EIR's should be written for each separate project of the WTTIP. Finally projects that are program level should not be commingled in a single EIR along with those that are project level. TS-8

Section Two: Comments specific to the New Leland Pressure Zone Reservoir Site Selection

The subject EIR lists seven possible alternatives as locations for the New Leland Pressure Zone Reservoir. Of these seven sites, that indicated as number 3 on map Appendix J was chosen to the exclusion of all others.

Site number 3 would required the use of access roads that would pass through open space, lead directly off of highway 680, pass through substandard roads in quiet residential neighborhoods or need to be pioneered up a step grade from the park and ride at the intersection of Rudgear Road and the I 680 N off ramp to South Broadway in Walnut Creek. In addition as previously stated selection of this site would result in the construction of the reservoir in close proximity to the top of a ridgeline in full view of vehicles traveling on I 680, an officially designated scenic highway since it was so designated on October 22, 1982.

I believe that the construction of the reservoir as planned i.e. taking 20 to 40 feet off of the top of the ridgeline may be in violation of Walnut Creek Ordinance No. 1776, City of Walnut Creek Hillside Performance Standards. Under *Sec. 10-2.1407 Property Development Standards, paragraph 4. Hillside/Ridge Preservation,* this ordinance states in part:: TS-9

> "No buildings or structures of any kind shall be constructed which encroach within a 100 foot vertical drop from the ridgeline of any visually prominent ridge or in such a manner that it breaks the skyline of any visually prominent ridge as viewed continuously for more than 1000 feet from any freeway, arterial or scenic corridor within the city limits. No buildings or structures of any kind shall be constructed upon portions of any site where the true slope is above 30%..."

September 19, 2006

The prevailing winds in our neighborhood are westerly to southwesterly and a great deal of dust, exhaust fumes and other airborne contaminants from interstate 680 are directed to the homes. Many residents of the neighborhood are elderly; others such as my wife have respiratory problems such as asthma that are aggravated by air pollution and dust. There are also young children and infants in the neighborhood. The cumulative effect of the construction of the Leland Pressure Zone Reservoir, its access roads and truck traffic for the preferred site which is in close proximity to the homes directly down wind from the site would result in a negative impact of the health of many of these residents. TS-10

During a site visit to 121 Rudgear Drive it quickly became apparent that the evaluation of the site was largely made on the basis of maps developed from aerial photographs. The location of a barbed wire fence on the Walnut Creek Sugarloaf Open space was used to determine the property line separating private properties from the open space itself. It was pointed out by some of the local residents to the EBMUD representative who was present at the time that the actual property line was between 18 to 20 feet north of the fence line. This came as a surprise to the EBMUD representative who was under the false impression that the fence was on the property line itself. The difference between the location of the property line as assumed by EBMUD would result in a greater use of open space for access to the preferred site than was planned by EBMUD. This may have biased the selection toward site number 3 over some of the other involving open space than it should have and leads to the question as to how accurately any of the property lines for the seven sites were identified in making the selection. TS-11 TS-12

Site 5 was eliminated for seismic concerns, which is understandable as it is located on the Reliez fault. However, other possible sites appear to have been eliminated from consideration for less concrete reasons. TS-13

Site 7 is a privately owned and vacant parcel. This parcel is considered to be less than desirable than the preferred site because there are five mapped landslides on the property however, it would seem that the problems caused by the landslides could be largely mitigated if not eliminated during the construction of the new reservoir. Also there is no conflict with open space noted to exist with this site. I believe that when all of the factors are taken into consideration this site might actually be superior in many ways to the preferred site. Access road limitations and issues as well as the need to traverse open space for the construction of the reservoir at the preferred location alone might be considered to be more significant than dealing with landslides that could be eliminated through the proper construction and grading techniques. TS-14

Sites 1, 2 and 6 have been eliminated for consideration due to the fact that they each are located partially on open space owned by the city of Walnut Creek and would require a vote of the people to be approved. It should be noted that EBMUD owns a parcel of land in the Sugarloaf open space that could be exchanged for a smaller parcel or EBMUD could set aside or purchase additional land to exchange for that required. If necessary a TS-15

measure could be placed on the ballot for approval by the Walnut Creek voters for this purchase. TS-15

Site 4 is a privately owned parcel that was eliminated due to traffic impacts of the pipeline construction on Ygnacio Blvd. TS-16

It appears that the site selection may have been more a matter of expediency and possibly based on faulty or inaccurate information in the form of actual property lines, open space access or physical conditions. I feel that the selection should be revisited and more consideration given to all of the issues involved in accessing the site and the visual impacts involved-particularly in light of the impact on the officially designated section of I 680 as a California scenic highway. TS-17

As previously stated in Section one of my comments above, at the publicly held meeting on July 20, 2006 at Heather Farms park for the purpose of public comments and questions concerning the various elements of the WTTIP I attending there was such a large number of people with questions or comments about the New Leland Pressure Zone Reservoir that the EBMUD personnel who were conducting the meeting actually stated to the group that they would take no further questions from anyone concerning that element of the project until such time that all those with questions about other elements of the WTTIP had been heard. However, the meeting was adjourned soon after there were no other questions concerning other elements of the WTTIP. It appeared to those of us present with concerns and questions regarding the New Leland Pressure Zone Reservoir that the EBMUD personnel were overwhelmed by the number of people who had concerns about this element of the WTTIP and that they were unprepared to respond to our wide ranging questions and concerns. Again to be fair, those of us who were present at the meeting and were not given an opportunity to voice our opinions or ask our questions did request and were granted a separate meeting in our neighborhood for the purpose of discussing our concerns, but this seems counter to the intent of holding public meetings concerning these types of projects. Other members of the community who do not live in our neighborhood but who may have been interested or gained useful information from the comments, questions or issues raised by those in our neighborhood were denied the chance to hear them. Also many of those such as myself, with concerns who made arrangements to attend the meeting in question on July 20, 2006 who were not allowed to voice their concerns at that public meeting were unable to attend the subsequently scheduled neighborhood meeting. In the end the only real response other than the neighborhood meeting was an extension of the comment period from August 25, 2006 to September 18, 2006. This does not seem to be an adequate means of addressing the many concerns regarding the New Leland Pressure Zone Reservoir. For this reason alone I feel that this element of the WTTIP should be the subject of a separate EIR and treated as a stand-alone project. Also the criteria used for the selection of the "preferred site," should be reevaluated in light of some of the new concerns and information that was not taken into account by EBMUD when the project was first considered. TS-18 TS-19

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Section Three: Comments specific to the access routes identified for the "Preferred Site" for the New Leland Pressure Zone Reservoir Site

EIR volume 1, Chapter 2 "Project Description," Section 2.6 "Elements Common to Both Alternatives," Sub-Section 2.6.13 "Other Program-Level Improvements," Paragraph "New Leland Pressure Zone Reservoir," on Page 2-86 lists four alternatives for access to the construction site of the reservoir on site 3. Although none of these routes are ideal there are several basic problems with Option A that would direct traffic from Rudgear Road up Rudgear drive and then on to a road to be constructed through several private properties and on to the Sugarloaf open space before entering the construction site.

Emergency Response: The main problem with this route is the fact that Rudgear Drive and Layman court that connects to it are both cul-de-sacs with no other means of ingress or egress other than the route to be taken by the construction traffic. In the event of an emergency response vehicles would likely be blocked or at the very least delayed when attempting to reach residents in the event of a medical emergency. TS-20

Fire Danger: Fire is an ever-present danger, particularly in the dry summer months that we must contend with since we live adjacent to the open space and the 680-freeway right of way. This was never more evident than when fires in the freeway have jumped from the right of way into the open space. This most recently occurred Tuesday September 6, 2005 and on that day several large fire apparatus had to access the open space by traveling up Rudgear Drive to the end of Layman Court. The efforts of these and other vehicles prevented what could have been a costly fire in terms of loss of life and property damage had the flames spread from the open space to the properties on Layman Court and Rudgear Drive. In light of this incident two scenarios come to mind. First, the difficulty or danger that could have occurred if all of the construction vehicles on site were force to egress the job site via an access road on Rudgear Drive and the very possible collision between a fire and emergency vehicle rushing to the scene with a construction vehicle evacuating and the resultant road blockage on the windy road with blind corners that is Rudgear Drive. The resultant blockage of the only escape route for all of the residents, many of who were home and have small children, pets or both is an unacceptable risk to life in the event of a fire. Secondly, the increase in fire risk posed by vehicles transiting a road through the dry grass areas where the road would be constructed off of Rudgear Drive. Currently there is little to no motorized traffic in the area of my property and that of the open space. What vehicles that are there are restricted to law enforcement and fire fighting vehicles as well as the tractor that annually creates the fire break in the dry grass in spring time. A fire caused by construction or maintenance vehicles would be initiated that much closer to my house and be more threatening to the TS-21

structures all along the roads as there would be much less time for fire fighters to react to the situation. TS-21

Health and Safety: It should be noted that many of the residents of both Rudgear Drive and Layman Court are retired, elderly and/or vision impaired. It is difficult for some of these residents to navigate the streets in part due to the poor condition of the street, absence of marking or streetlights as well as the narrow and winding nature of the street. Most do so at midday when the conditions are more favorable for them. The transit of construction vehicles as well as large trucks and other district vehicles will only serve to make it more difficult if not impossible for these residents to travel to and from their homes. This would result in many of these people who are now independent to become shut in and virtual prisoners of their own homes. Trucks will be on the small street each day during the middle of the daylight hours when they are most able to get out for shopping, doctors appointments or just to visit family and friends. Also there are many small children and animals that will find the neighborhood a much less safe place to play transit. Many of the residents walk up and down the street either alone or with their animals. There are no sidewalks on the street, which if large vehicles are allowed to transit the Rudgear Drive, will make for extremely hazardous conditions for pedestrians, animals and those walking them and also other vehicle on the road when pedestrians or animals are present, as they have to allow more room to pass them. TS-22

Unfortunately, I have had first hand experience with the dangers of EBMUD vehicles driving on Rudgear Drive. On July 9, 1997 I was struck head on by a 1996 Jeep Cherokee driven by EBMUD employee Margaret Franklin causing in excess of $5,500 in damage to my vehicle. I was almost completely stopped by the time that I blew my horn in a vain attempt to avert the collision. There was more than ten feet of skid marks left by the jeep while it was under braking as it traveled up the hill. Since the skid marks left by both front wheels of the EBMUD vehicle were over the center of the road and on my side EBMUD not only paid for the entire repair of my vehicle but also for a rental vehicle for the duration of time that I was without the car. To this day it is difficult for me to drive down the hill with a EBMUD vehicle traveling in the opposite direction, it is almost inconceivable for me to think of diving on the road for a number of years with several times daily trips of larger EBMUD vehicle driving on Rudgear Drive.

Traffic: There is already an increase in the amount of traffic on Rudgear Drive as well as Layman Court due in no small part to the multiple cellular telephone sites at the property at the end of Layman Court as well as the new construction of homes as well as the new residents of the homes themselves. Both Rudgear Drive and Layman Court have no other outlet and therefore there is no possibility of an alternate route. TS-23

Air Quality: As previously stated in section two above the cumulative effect of the truck traffic for construction of the Leland Pressure Zone Reservoir on access road of Option A which is in such close proximity to the homes directly down wind from the site would result in a negative impact of the health of many of these residents. TS-24

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Noise: At present there is some distant road noise that can be heard from interstate 680, which is behind our house. Vehicles that transit Rudgear Drive and Layman court can be heard, although barely, from our house. The sound of passenger cars and trucks is greatly muffled due to the configuration of the land and the location of the house on the property. Our home is below the grade level of the road surface of Layman court and buffered from the traffic on Rudgear Drive. The same is not the case for large trucks, construction equipment and other similar vehicles. In fact every Thursday when the garbage trucks come up the road at 6:15 to 7:30 am the whole house is awakened or otherwise disturbed if not sleeping. This situation would be greatly worsened if a large number of heavy trucks and construction equipment were to transit the road. This would be especially true during the construction phase and would continue after construction was completed and maintenance vehicles traveled in the area. The noise and disturbances would be much worse and have a greater detrimental impact if a road was built through my back yard. TS-25

Instability of Soils: It should be noted that there is considerable instability of soil beneath the roadway of Rudgear Drive as well as the hillside comprising the down slope or Western side of my property where the proposed access road way is to be located. This instability can be easily seen even by the average person and is evidenced by the cracks in the road and damage to the water main especially in the up hill portion of the road, which at present is extremely poor condition and will no doubt be destroyed by the transit of trucks, district vehicles and other heavy construction equipment. Over various times during the last five years or more the road has been torn up for access to the water main leak by EBMUD crews. Although damaged areas in the road have been repaired over time and the cracks in the road surface have been recently sealed, these cracks continue to reappear and widen as time goes on. This fact makes it apparent to me and other residences of Rudgear Drive and Layman court that the soil under the road way is unstable and this condition would be aggravated by the passage of construction vehicles and heavy trucks using the road for the period of the construction project. As for the instability of the soil on my property I had to level the foundation of my house at no small cost due to the soil movement and subsidence on the hill. Other properties in the area have had similar experience with these problems. Blasting and excavation of rock at the site could also cause landslides and foundation damage to the homes in the neighborhood. TS-26

Road Condition: As has been previously stated the condition of the road surface or Rudgear Drive is poor particularly from the right bend in the road from the driveway at 30 Rudgear Drive to the top of the hill at the intersection with Layman Court. There are no guardrails or curbing yet there is a precipitous drop from the right side of the road on the uphill side. The road is cracked and damaged in many places; it will not stand up to heavy truck traffic and may be severely damaged during construction by truck traffic. Again it is the only means of access for residents of both Rudgear Drive and Layman Court. TS-27

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Drainage: When you live on a hill water run off and drainage are two big factors. At present water that runs off of the south-west side of Layman Court-which is incidentally the down hill side of the road- is directed to a gully which runs along the adjacent south side of Rudgear Drive at the corner of the intersection of the two streets. At about the point of the proposed access road the run off is directed down the valley roughly at the boundaries of 131 Rudgear Drive and 21 Layman Court with 121 Rudgear Drive. At that point it follows the contour of the hill until it reaches the relative level area inside the Sugarloaf open space. Although a great deal of the water is presumably absorbed into the ground there still remains a large quantity of run off that pools in the open space. The addition of a road in the area of this small valley would create more run off and less area for the water to be absorbed before it entered the open space creating a drainage problem. TS-28

Visual Impact: Currently the view from my property is very bucolic in nature. Our view line extends down slope to the west and we can see the open areas of our neighbor's properties as well as the open space adjacent to this area. At a distance the houses that are located on Crest Road as well as along both sides of Danville Blvd are visible. There is no direct view of any roads from our house although on some parts of the property a portion of Rudgear Drive and the Routes 24 and 680 interchange can be seen at a distance. If a road were constructed on a portion of my property and my neighbors' properties the visual impact would be significant and in some ways the character of the view would be changed to the extent that if the view from the property to was to include a road and further a road that will be traversed by construction equipment for a period of years, I would never have purchased the property. The very reason that I purchased my house and property was the seclusion, privacy and pastoral nature of the property. Development of a roadway and the use of it by construction and maintenance personnel and equipment would substantially alter the view and in fact more than likely destroy the very nature of the property. TS-29

Loss of use: We have recently completed a survey of our property at significant expense. The purpose of our undertaking the survey was to allow us to remodel our home and delineate the boundaries of the property make best use of the down slope portion of the lot. Due to that fact that the property is sloped and there is a Sanitary Sewer pipe running through our back yard we are limited in the areas that we can use for construction of a lawn, play structure or outbuildings such as a shed or other improvements. We have considered several options to better utilize the property behind our home. It should be noted that none of these options included the construction of a road on our land. In fact depending on the configuration of any road constructed, it is probably the case that along with the other existing constraints construction of the road will render the rest of my nearly three-quarters of an acre unusable. TS-30

Access to the Open Space: Currently my children Kyle and Lauren are eight and six years of age. Like most kids their age Kyle and Lauren love to play and especially love any TS-31

chance that they can get to play outside and enjoy the outside world exploring and learning about the environment. The location and configuration of our lot allows us access to the Walnut Creek Sugarloaf open space from the southwestern corner of the property. Were a road to be constructed along the down hill or western line of our lot as has been proposed we would then lose this access to the open space and would be unable to access it without leaving our property first or passing over another resident's private property. Neither of these options approaches the current situation in which we find ourselves where our children can safely access the open space directly from our property for recreation and enjoyment. This access was another reason that I originally purchased the property and the loss of it would severely limit the quiet enjoyment that we have had to date and expect to have in the future. TS-31

In conclusion it is my opinion that for the many and varied reasons spelled out above an access road for the Leland Pressure Zone Reservoir Construction Project originating at Rudgear Drive is a poor choice especially when other alternative are available. The dangers presented to the residents of Rudgear Drive and Layman Court far outweigh any possible advantage to constructing the road at that location. TS-32

Thank you for the opportunity to voice my concerns regarding the Draft EIR and I would be happy to further expand upon or explain any of the information contained in this letter if necessary.

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2.102 Todd Simonse

Please note that the New Leland Pressure Zone Reservoir is examined at program level of detail in the WTTIP EIR. EBMUD is committed to engaging in a project-level EIR at an appropriate date in the future. Refer to Section 2.1.6, Master Response on the New Leland Pressure Zone Reservoir Alternatives, for more information.

TS-1 and TS-2

The comment is correct that the WTTIP is comprised of numerous, complex elements. For reasons stated in Section 2.1.1, Master Response on Project- and Program-Level Distinctions, the District believes that it is consistent with the intent of CEQA to discuss these in a single document. All are parts of the water system, and the needs for these improvements (meeting future regulatory standards related to water quality, complying with permit conditions, meeting existing and future water demands, improving aging infrastructure, and correcting hydraulic constraints) and their implementation overlap and relate in many ways. Examples include:

- Many improvements are driven by existing water quality regulations and anticipated changes in those regulations. Examples include basic changes at four of the five WTPs (i.e., excluding Walnut Creek WTP).

- There are meaningful, substantive differences in the characteristics of project-level and program-level improvements under Alternative 1 versus Alternative 2 (e.g., improvements at four out of five of the WTPs differ under the two alternatives; the Orinda-Lafayette Aqueduct would only be implemented under Alternative 2). Consequently, the improvements at the Lafayette WTP under Alternative 1 versus Alternative 2 directly affect improvements at three other WTPs; therefore, the improvements do not have independent utility and should be addressed in the same CEQA document.

- Most elements are geographically related, addressing system improvements needed to serve, and proposed within, the Walnut Creek/Lamorinda area.

- Problems in providing water service to the Leland Pressure Zone (much of Walnut Creek and Alamo) drive the need for pumping and pipeline improvements at four sites: Walnut Creek WTP, Lacassie Avenue, and Danville Boulevard, and west of the Danville Pumping Plant.

- The existing Leland Reservoir also serves the Leland Pressure Zone. That reservoir is in disrepair but cannot be replaced until the New Leland Pressure Zone Reservoir and Pipeline are constructed.

- The Ardith and Moraga Reservoirs, Donald Pumping Plant, Moraga Road Pipeline, and St. Mary's Road /Rohrer Drive Pipeline are related. The Moraga Reservoir cannot be taken out of service for reconstruction until the Ardith Reservoir is constructed.. The Moraga Road Pipeline provides water to the

> Moraga Reservoir and all of these projects are needed to reliably provide water service to the Moraga area. Eventually, the St. Mary's Road/Rohrer Drive Pipeline, which is essentially an extension of the Moraga Road Pipeline, will be needed to meet future (2030) water demand in this area.

The District's intent was to present to the public, as early in the planning process as possible, with a comprehensive understanding as to how individual system improvements that may be necessary in their areas fit into EBMUD's water treatment, storage, and distribution operations. This is consistent with both the spirit and letter of CEQA which calls for EIRs to be prepared as early as feasible in the planning process, to consider the whole of the action, and to provide a good faith effort at full disclosure.

TS-3 Refer to the previous response regarding evaluation of the WTTIP in one EIR. EBMUD regrets that the commenter could not attend the follow-up site visit for the New Leland Pressure Zone Reservoir. The District extended the comment period at the request of agencies and individuals who requested additional time to review the DEIR. EBMUD has received substantial and meaningful public comment on the WTTIP, as evidenced in this Response to Comments document.

TS-4 Please refer to Section 2.1.1, Master Response on Program- and Project-Level Distinctions. The program-level elements are not analyzed at the same level of detail as project-level elements because there is not enough information to do so at this time. In some cases, certain elements also may not be needed (there is no reason to design projects like the high-rate sedimentation units and ultra-violet light disinfection facilities at the Walnut Creek, Lafayette, and Orinda WTPs if they will never be needed). The improvements discussed at a program level will not be implemented by EBMUD without further environmental review under CEQA. In other words, projects like the New Leland Pressure Zone Reservoir will have their own separate CEQA document which will contain a full analysis of alternatives (i.e., an EIR or Mitigated Negative Declaration) before they are approved.

TS-5 This comment is premised on the assertion that all elements of the WTTIP have independent utility and therefore each should be the subject of its own EIR. As indicated in the examples provided in **Responses TS-1** and **TS-2**, implementation of the WTTIP elements are related and this affects any characterization of a "No Project" scenario (e.g., if the Ardith Reservoir is not constructed then the Moraga Reservoir cannot be replaced; likewise, if the New Leland Pressure Zone Reservoir as presently examined and designed, is not constructed then the existing Leland Reservoir cannot be replaced).

Section 6.2 describes the No Project Alternative (beginning on DEIR p. 6-2) consistent with CEQA requirements. As that discussion indicates, the No Project consequence of failure to implement the WTTIP elements is the inability of EBMUD to address the needs discussed in the WTTIP. The discussion indicates that in the short term, EBMUD

would continue to operate the system as it does today, but over time, EBMUD would need to implement other strategies to meet the needs for the WTTIP projects including some of the alternatives identified in DEIR Sections 6.3 through 6.9.

Because of the interrelation among the WTTIP elements, the inability to implement one in particular would have a domino effect on the ability to implement one or more of the others, or would undercut the District's ability to meet an overarching need addressed by a collection of elements. For example, if the Ardith Reservoir is not built, the Moraga Reservoir cannot be replaced and the problems associated with that reservoir (DEIR p. 2-67) would persist and worsen over time.

With respect to program-level improvements, a more thorough discussion of a No Project alternative will be presented in subsequent CEQA documentation. With respect to the New Leland Pressure Zone Reservoir in particular, refer to **Response WC-5** regarding replacement of the existing Leland Reservoir and, more generally, the consideration of alternatives to the identified New Leland Pressure Zone Reservoir site in a subsequent project-specific CEQA EIR.

TS-6 EBMUD has used its best efforts to analyze and disclose all that it reasonably can of the potential impacts caused by the proposed projects. As the comment notes, unforeseen circumstances can extend the duration of construction projects. Nonetheless, EBMUD and its contractors strive to minimize these extensions due to the basic need for the new facilities to be in service and the desire to control costs and minimize impacts.

TS-7 The DEIR acknowledged the designation of I-680 as a state scenic highway on p. 3.3-50. Mitigation measures to restore the New Leland Pressure Zone Reservoir site, would choose colors for the tank that blend with the surrounding environment, and plant landscaping to help the tank blend in to its surroundings similar to those prescribed in DEIR Section 3.3, Visual Quality. These measures could help reduce the impacts of concern to the commenter. However, as stated on DEIR p. 3.3-50, impacts to visual quality at the identified New Leland Pressure Zone Reservoir site could remain significant and unavoidable.

TS-8 This comment summarizes **Comments TS-1** through **TS-7** please refer to previous responses.

TS-9 The comment states that construction of the New Leland Pressure Zone Reservoir at the preferred site (site # 3) would violate Walnut Creek Ordinance No. 1776, City of Walnut Creek Hillside Performance Standards. While the proposed project could be inconsistent with the Hillside Performance Standards, the Hillside Performance Standards address impacts to scenic resources. The DEIR (p. 3.2-50) acknowledges that construction of the New Leland Pressure Zone Reservoir at the identified preferred site could result in significant, unavoidable impacts to views. The project-level EIR for the project will evaluate project consistency with those standards once design details on the

project are further developed. It should be noted however, that the analysis of visual quality is particularly sensitive to design details, and simulations are developed through computer modeling of drawings indicating topographic changes in plan view and cross-section, elevations for the tank and appurtenant features, and details such as fencing, valve box location, etc. that have yet to be determined. It should also be noted however, that the Hillside/Ridge Preservation ordinance is part of the planning and zoning ordinances of the Walnut Creek Municipal Code. As a local agency and utility district serving a broad regional area, EBMUD is not subject to building and land use zoning ordinances of cities and counties when implementing projects that involve the storage, treatment, or transmission of water. Please also refer to Section 2.1.3, Master Response on EBMUD Obligations to Comply with Local Ordinances, Obtain Local Agency Approvals and Permits, and Pay Local Agency Fees for additional response pertinent to this comment.

TS-10 The comment regarding airborne contaminants in the vicinity of the identified New Leland Pressure Zone Reservoir site is acknowledged. It is noted on DEIR p. 3.9-8, that high levels of particulates can exacerbate chronic respiratory ailments such as bronchitis and asthma. According to the California Air Resources Board (CARB),[1] California freeway studies show about a 70% drop off in particulate pollution levels at 500 feet. Based on these studies, CARB recommends that residential uses not be located within 500 feet of a freeway or high traffic roadway. Since the residences immediately east of the proposed reservoir site are approximately 500 feet east of the I-680 freeway, particulate levels at these residences are not expected to be significantly different from those in the surrounding neighborhood. Therefore, the cumulative effects of particulate contributions from reservoir construction would be similar to the effects of reservoir construction elsewhere. As stated on DEIR p. 3.9-36 under the New Leland Pressure Zone Reservoir impact discussion, the BAAQMD considers potential construction-related impacts to be mitigated to a less-than-significant level with implementation of BAAQMD-recommended dust and equipment exhaust controls. The future project-level EIR will include mitigation measures such as requiring implementation of all BAAQMD-recommended dust and exhaust control measures as appropriate. These measures would minimize the project's contribution to cumulative particulate emissions in this area.

TS-11 The first screening of potential sites for the New Leland Pressure Zone Reservoir was based largely upon aerial photography overlaid with elevation data and property lines based upon the county tax assessor maps. There is, in fact, a discrepancy between the location of the fence and the property lines as depicted on the county tax assessor maps. A licensed surveyor was commissioned to research the actual property line location. On December 5, 2005 the surveyor reported that preliminary map and deed research and subsequent calculations seem to indicate that the fence was not the property line.

[1] California Air Resources Board, *Air Quality and Land Use Handbook: A Community Health Perspective.* April 2005.

EBMUD intentionally avoided making improvements in this area, because the property lines were circumspect.

TS-12 The location of the boundary between parcels 187-40-006-4 and 187-032-017-1 did not influence the site selection process. The identified New Leland Pressure Zone Reservoir site is completely outside of the area of discrepancy and the temporary access road was easily routed around the area.

The county tax assessor maps are not the legal descriptions of the property boundaries. Only a surveyor licensed by the State of California can legally determine the precise location of a property's boundary. Despite this, the county tax assessor maps do provide an indicator of property boundaries for planning level purposes. The tax maps compare well with the accuracy provided by the USGS elevation data and aerial photography data.

TS-13 See **Responses TS-14** and **TS-15**.

TS-14 A number of factors would make Site 7 a feasible site, if it did not have five mapped landslides. One of those factors is that the Tice Pumping Plant will be installed on the same property, so the two facilities could share the Tice Pumping Plant Pipeline. Nonetheless, the risk of one of these landslides undermining the foundation of the reservoir preclude the site from further consideration.

TS-15 The commenter notes that sites 1, 2 and 6 for the New Leland Pressure Zone Reservoir were eliminated by EBMUD staff as infeasible because they are located partially within open space and owned by the City of Walnut Creek. The comment also notes that EBMUD owns a parcel of land in the Sugarloaf Open Space that could be exchanged. Refer to **Response HME-1** regarding this suggestion.

In determining whether an alternative site is feasible, a lead agency may consider whether the project proponent can reasonably acquire, control, or otherwise obtain access to the site (CEQA Guidelines §15126.6(f)(1)). EBMUD will continue to consider this in further project-level review. To date, however, EBMUD determined that it could not reasonably acquire sites 1, 2 or 6 because the parcels are located partially within land designated as open space owned by the City of Walnut Creek, in part, because the City of Walnut Creek has noted that conveyance of this property is restricted by Government Code Section 38502. These lands can only be sold following a vote by citizens of Walnut Creek and EBMUD does not control this process.

TS-16 Comment noted.

TS-17 The alternatives considered and rejected for the New Leland Pressure Zone Reservoir during the site selection process were identified in Section 6.10.3 of the DEIR (DEIR p. 6-65). See **Responses TS-11** and **TS-12** regarding information on property lines. See

Response TS-19 regarding consideration of alternatives in a subsequent project-level EIR for the New Leland Pressure Zone Reservoir.

Refer to the more in depth comment and reply regarding open space access in **Response TS-31**.

Refer to **Response TS-9** regarding the potential for visual impacts along Highway 680.

TS-18 The volume of comments is indicative of the concern regarding this element. The public has requested a great amount of detail on this element. It should be noted, however, that it has only been analyzed at a program level in this DEIR. There is still a great deal of uncertainty related to the details in this project. Detailed responses to these concerns will be provided once the project has been developed and a subsequent project-level EIR is prepared.

TS-19 The New Leland Pressure Zone Reservoir will be evaluated in a later project-level EIR, along with the replacement of the existing Leland Reservoir (since these two projects are inextricably linked). Information received in comments on the proposed site will be used to help inform the scope and content of that document including the discussion of project alternatives, consistent with CEQA Guidelines Section 15126.6.

TS-20 The DEIR (p. 3.8-25) describes, at a program-level of detail, traffic impacts associated with the identified New Leland Pressure Zone Reservoir site, and indicates that truck traffic on residential streets would reduce the number or the available width of travel lanes on roads, resulting in short-term traffic delays. The discussion concludes that implementation of mitigation measures similar to DEIR Measures 3.8-1 and 3.8-7 could reduce traffic impacts, but some could likely remain significant and unavoidable. Traffic impacts, including disruption of access for emergency vehicles (discussed for project-level elements on DEIR pp. 3.8-20 and 3.8-21) will be more thoroughly investigated in the project-level EIR for this project.

TS-21 The commenter's concern regarding fire danger and emergency vehicle access are acknowledged. These issues will be evaluated in detail in a subsequent project-level EIR once the proposed New Leland Pressure Zone Reservoir project is better defined.

TS-22 The commenter's concern regarding traffic safety are acknowledged. These issues will be evaluated in detail in a subsequent project-level EIR once the proposed New Leland Pressure Zone Reservoir project is better defined. Traffic control plans would be developed during the construction phase of the project (see Measures 3.8-1 on DEIR pp. 3.8-13 – 3.8-15).

TS-23 These concerns are noted. See **Responses TS-20** and **TS-22**.

TS-24 Refer to **Response TS-10**.

TS-25 See the analysis of noise and vibration on DEIR p. 3.10-54. Implementation of mitigation measures (such as DEIR Measures 3.10-1a and 3.10-1b) that limit truck operations (haul trucks and concrete delivery trucks) to the daytime hours. This is specified under each affected jurisdiction's hourly time limits (except during critical water service outages or other emergencies and special situations), and would minimize potential noise impacts. Please note that Measure 3.10-1b has been revised and is included in Section 3.2 of this Response to Comments document.

TS-26 The geology and soils of the identified New Leland Pressure Zone Reservoir site are included in the discussion of Program Level projects on DEIR p. 3.4-35. As mentioned in the DEIR, this proposed program-level element includes inclined areas that may be susceptible to slope failure and it therefore identifies mitigation for this potential impact. A future project-level EIR to be conducted for this project would likely require a mitigation measure similar to DEIR Measure 3.4-1 on p. 3.4-25. The mitigation measure would require a geotechnical investigation to evaluate the hazards of slope stability according to standard geotechnical engineering practice. The investigation, conducted by professional geotechnical and/or civil engineers registered with the State of California, would identify recommendations to correct conditions that may limit construction, including the access roadway. The investigations typically include review of existing data, field sampling, and laboratory soil and rock testing. The geotechnical recommendations insure that the project will be designed so that the temporary effects of construction are less than significant.

EBMUD does not anticipate any landslides or foundation damage to homes in the neighborhood of the identified New Leland Pressure Zone Reservoir site caused by blasting and excavation of rock at the site. EBMUD does not know if blasting would be required; construction methods will be determined prior to completion of the project-level EIR and evaluated therein. (Refer to DEIR Measures 3.10-3a and 3.10-3b for information on methods EBMUD uses to mitigate vibration impacts.) EBMUD committed (at the August 19, 2006 public meeting) to document the existing condition of the foundations of residences on Rudgear Drive prior to construction.

TS-27 Implementation of mitigation measures similar to DEIR Measure 3.8-7 would require road conditions to be documented for all routes that will be used by project related vehicles. Roads damaged by construction will be restored to equal to their condition before the construction began.

TS-28 The concern regarding drainage is noted. These issues will be evaluated in detail in a subsequent project-level EIR once the proposed project is better defined.

TS-29 The potential visual impacts associated with building an access road across your property will be more fully evaluated in a subsequent project-level EIR. The DEIR (p. 3.3-50) states that visual impacts at this site could remain significant and unavoidable. The access road option that traverses your property would be a temporary

access road. Once the permanent access road is completed the property would be restored to its preconstruction condition.

TS-30 The New Leland Pressure Zone Reservoir is a program-level element of the DEIR. Further study and evaluation will be done in a project-level EIR before selection of the site and a final determination of the access road is made. The access road option that traverses your property would be a temporary access road. Once the permanent access road is completed, the property will be restored to its preconstruction condition and there would be no long-term impacts on property uses. If any property is used as an access road, then EBMUD would pay the fair market value for its use.

TS-31 EBMUD would allow pedestrian use of the temporary access road outside of the construction hours, so that access would be available to the open space from your property. There are public access points to the open space that could be used during construction hours.

TS-32 The comment regarding Rudgear Drive is acknowledged.

Comment Letter TU

From: Ted Urban [mailto:lidateds@comcast.net]
Sent: Tuesday, August 08, 2006 5:29 PM
To: Water Treatment Transmission Improvements Program; wayne@canterburyraub.com
Cc: Lida and Ted Urban; Aundra Urban
Subject: Fw: EBMUD

To Judith Zavadil
From Ted Urban
August 8, 2006

Dear Judith,

I have forwarded you a copy of Wayne Canterbury's letter so that you are aware that I am familiar with his representations regarding our property on Miner Road. I was approached by Nora Harlow several months ago who made me aware that our property was being considered as an alternative site for a pump station for EBMUD. She asked me if I would consider the sale of a portion of our propertyif approached by EBMUD for a pump station and sent me a CD of the EIR. I indicated that I would give it some thought and when she called back several weeks later to indicate that there might be some objection from residents adjoining the proposed Lombardy site I told her that we would be receptive to a sale at fair value. She then said that she would be meeting with engineering on the site and asked if I could attend but I was not available. I haven't heard back from her at this point. TU-1

The representation made by Wayne Canterbury of our interest is accurate to my knowledge and his assessment of the pros and cons of the two properties are also accurate. I'm not sure who is in charge of this decision at EBMUD but if you, Nora or someone else in property acquisition needs to contact me on this matter you can reach me at (925)254-6092, TU-2

Respectfully,

Ted Urban
----- Original Message -----
From: Wayne Canterbury
To: Ted Urban
Cc: Robert Wooldridge
Sent: Tuesday, August 08, 2006 5:02 PM
Subject: EBMUD

Ted:

Enclosed is my letter to EBMUD. The lead engineer on the project is Judith Zavadil. Her email address is wttip@ebmud.com . When I spoke to her today on the subject, she seemed to hold the notion that you were not inclined to sell, but that Bob Wooldridge, owner of the Lombardy lot, is. I replied that I believed the opposite was true in both respects. Any effort that you and Bob can make to set the record straight might be helpful.

Best regards,
Wayne

Wayne S. Canterbury

Canterbury & Raub
101 Montgomery Street, Suite 2050
San Francisco, CA 94104
Off. Tel.: 415 227-1681
Off. e-Fax: 415 651-9039
Res. Off. Tel.: 925 253-0249
Mobile: 415 272-4235
wayne@canterburyraub.com

2.103 Ted Urban

TU-1 Comment noted. EBMUD understands that Mr. Ted Urban is receptive to discussing the sale of a portion of his property between Hacienda Road and Miner Road. This corroborates the comments provided by Mr. Wayne Canterbury regarding Mr. Urban's interest in selling the property to EBMUD.

TU-2 Comment noted. Please see **Response TU-1**.

From: Carrillo, Vince [mailto:Vince.Carrillo@wgint.com]
Sent: Monday, September 18, 2006 3:43 PM
To: Water Treatment Transmission Improvements Program
Cc: vincecarrillo@sbcglobal.net; mary-carrillo@sbcglobal.net
Subject: EBMUD Draft Environmental Impact Report Water Treatment and Improvements Program

Dear Judy,

I am a resident of Orinda, CA. I have some major concerns with the water treatment and improvement program being planned for the water treatment plant on Camino Pablo Road in Orinda. I understand the necessity of following Federal law in being mandated to improve the water quality for the residents of our area. I am mostly concerned with the unfortunately likelihood of some sort of terrorist attack on the water plant. Should such an event take place and with the proximity of Wagner Ranch School I believe the consequences would be catastrophic. VC-1

1. I know that because of the Homeland Security Presidential Directive/ HSPD-9 dated Jan. 30, 2004 that a vulnerability assessment had to be provided that requires a plan to be set up on record on how to deal with a terrorist attack. I am concerned that with this new enlargement of the water treatment plant that any new vulnerability assessment plan would not be able to provide the security necessary to protect our children attending Wagner Ranch School. This new enlargement would in fact eliminate the physical and security buffer zone currently in place which is the Orinda Sports Field. VC-2
2. The amount of construction effort would affect all of the lives of the residents of our community for years. Increased traffic and congestion to serve the needs of others outside of the Orinda area is a big burden to bear and while the shoulders of the residents of our community are large, we feel it is uncalled for in this case. VC-3
3. Our house overlooks the Sports Field and with a new plant we would look down on the unsettling site of large concrete clearwells in a place where the children used to play. VC-4

I implore you to abandon the large expansion planned for the years in the future and seriously look at other sites that are less intrusive into the daily lives of the residents here in Orinda. VC-5

Regards,

Vince Carrillo
30 Manzanita Terrace
Orinda, CA 94563

2.104 Vince Carrillo

VC-1 Since 2001, EBMUD has heightened security at its critical water facilities, including its water treatment plants. EBMUD completed a vulnerability assessment in accordance with federal law, including Homeland Security Presidential Directive 9, and security upgrades to the Orinda WTP are under design and will be installed in Summer 2007. The plan will be updated in accordance with applicable legal requirements.

VC-2 See **Response VC-1**. With any physical expansion of its water treatment plants, EBMUD carefully considers and makes improvement to facility security appropriate to the expansion (e.g., security fencing, motion detectors, and cameras). This will be done as part of the final planning and design for any new facilities, including those contemplated for the future on the Orinda Sports Field.

VC-3 Refer to Section 2.1.2, Master Response on Benefits to Orinda. The commenter's opinion about the increased traffic associated with the project construction is noted. Section 3.8 of the DEIR, Traffic and Circulation, addresses issues of increased vehicle trips and delays in Impacts 3.8-1 and 3.8-2.

VC-4 DEIR pp.3.3-48 through 3.3-49 presents a general discussion of visual impacts associated with construction of the clearwell and other facilities being contemplated for the sports field area. That discussion generally characterizes the visual attributes of the facilities. EBMUD would prepare detailed, project-level environmental documentation of the clearwell and other facilities prior to approval; the visual impacts of such facilities (including visual simulations) would be presented in that document. Please note, due to elevations required for the clearwell to work properly, most of the tank will be substantially below the existing grade.

VC-5 Comment acknowledged. Program-level improvements are projects that EBMUD contemplates for sometime in the future, depending on (for example) changing water quality regulations or changing source water quality. The need for high-rate sedimentation and ultraviolet disinfection processes at the water treatment plants would also be determined in the future. Likewise, the need to construct the program-level clearwells and San Pablo Pumping Plant and Pipeline at and from the Orinda WTP would be determined in the future, based on further consideration of water management strategies. Though suggestions for future alternatives will be explored, EBMUD believes it is prudent and responsible to consider the lands it purchased for water treatment service to the community.

Comment Letter VEEC

From: Virginia Carton [mailto:vcarton@sbcglobal.net]
Sent: Thursday, September 07, 2006 9:40 AM
To: Water Treatment Transmission Improvements Program
Subject: Orinda Filter Plant Expansion

EBMUD Board of Directors
c/o Judy Zavadil MS

As homeowners and residents of Orinda,(6 Los Altos Rd.), we are opposed to the proposed project for expanding the Orinda Filter Plant. We find the project is not well thought out! The project is not obviously necessary, it should not be in a residential neighborhood, it is completely thoughtless in the 'communal' sense and eliminating a sports field...for what is not at all an obvious need demonstrates yet again that the 'authorities' do not have their priorities in place! Why should such an expansive project be next door to an elementary school? Why, when a house remodel has to wade through the Orinda ' Design Review ' should the community find it is alright that the landscape we all cherish be gobbled up w/more industrial site? NO! VEEC-1 VEEC-2 VEEC-3 VEEC-4 VEEC-5

EBMUD can find an eminently more suitable place AND develop a project which addresses 'state of the art' technology! We are shocked by the inferioir reasoning, understanding, planning and development of this expansion project who is at the helm? VEEC-6 VEEC-7

Virginia Stewart-Carton, Edmond Carton, Edmond Laurent Carton

2.105 Carton Family

VEEC-1 The comment's opinion regarding the DEIR is noted. Refer to subsequent responses regarding more specific comments on the DEIR presented in this submittal.

VEEC-2 Regarding the need for the project, refer to Section 2.2 of the DEIR. For more in-depth information, refer to **Responses ORIN-9**, **ORIN-10** and **ORIN-11**.

VEEC-3 The commenter's concern for the Orinda Sports Field is acknowledged. There is an existing Memorandum of Understanding (MOU) between EBMUD and the City of Orinda covering the use of the Sports Field ("Recreational and Watershed Land Use Policies and the Objectives in the City of Orinda"). Pursuant to the MOU, prior to implementation of any WTTIP elements contemplated for the ballfields area, the City would move the Sports Field operations to a new location within the Montanera development. Please also refer to Section 2.1.2, Master Response on Benefits to Orinda, for additional response pertinent to this comment.

VEEC-4 The DEIR considers the presence of schools, including the Wagner Ranch Elementary School, in the impact evaluations (see, for example, pp. 3.8-14, 3.9-9, 3.10-39, 3.11-20). Map C-OWTP-1 depicts the location of the Orinda WTP relative to the Wagner Ranch Elementary School. The WTTIP includes project-level improvements (evaluated in detail) and program-level improvements (evaluated more generally). Table 2-2 (DEIR p. 2-5) identifies those improvements at the Orinda WTP that are project level and those that are program level. As shown on Maps D-OWTP-1 and D-OWTP-3, the facilities that would be nearest the Wagner Ranch School are program level, and include a clearwell, Chlorine Contact Basin, and Ultraviolet Disinfection Building (and, under Alternative 2, the entry shaft of the Orinda-Lafayette Aqueduct). The District will determine the need for these program-level elements based on regulatory requirements and further consideration of water management strategies. At that time, EBMUD would conduct the site evaluation, design, and additional environmental review needed to fully assess potential impacts to school children (see DEIR p. S-19).

VEEC-5 It is EBMUD's custom to work closely with host jurisdictions during project planning and to conform to local land use plans and policies to the extent possible. As acknowledged on DEIR p. 3.2-12, the pertinent land use jurisdictions would determine project consistency with general plans during implementation. However, the City of Orinda design review process is part of the planning and zoning and building ordinances of the Orinda Municipal Code. As a local agency EBMUD is not subject to building and land use zoning ordinances of cities and counties when implementing projects that involve the storage, treatment, or transmission of water (California Government Code Sections 53091 and 53095).

Please also refer to Section 2.1.3, Master Response on EBMUD Obligations to Comply with Local Ordinances, Obtain Local Agency Approvals and Permits, and Pay Local Agency Fees, for additional response pertinent to this comment.

VEEC-6 Refer to **Response VEEC-2** and the discussion beginning on DEIR p. 6-52 regarding other water treatment plant alternatives considered.

VEEC-7 The concerns regarding this project are noted.

Comment Letter WBP

WATER DISTRIBUTION

SEP 13 2006

PLANNING DIVISION

EBMUD

Water Treatment & Transmission Improvements Program
Draft Environmental Impact Report

Name: WILLIAM & BEVERLY PETERSON

Address: 131 RUDGEAR DRIVE, WALNUT CREEK, CA 94596

Email: bnbpeterson@gmail.com

COMMENTS:

OUR COMMENTS AND QUESTION CONCERN THE PROPOSED CONSTRUCTION, LOCATION AND ACCESS TO AND FROM THE NEW LELAND PRESSURE ZONE RESERVOIR AS DESCRIBED IN THE DRAFT EIR. WE HAVE ATTACHED A COPY OF OUR LETTER TO EBMUD ENGINEER TIMOTHY McGOWAN, DESCRIBING OUR REASONS FOR OPPOSING THE USE OF RUDGEAR DRIVE AND PRIVATE PROPERTY FOR ACCESS AND EXITING THE PROPOSED RESERVOIR CONSTRUCTION SITE. WBP-1

A COPY OF OUR LETTER TO McGOWAN AND OUR COMMENTS AND QUESTIONS ON THE DRAFT EIR FOLLOW:

Submit this form as you leave this meeting, mail or hand deliver the form to EBMUD at Mail Stop # 701, 375 Eleventh Street, Oakland, CA, or email comments to Judy Zavadil, Senior Project Manager, at wttip@ebmud.com.

NOTE: Comments on the Draft EIR must be received by EBMUD by August 25, 2006, at 4:30 pm. Comments should be in writing and include your name and address.

Comment Letter WBP

William & Beverly Peterson
131 Rudgear Drive
Walnut Creek, California 94596

January 10, 2006

Mr. Timothy McGowan, PE
Associate Civil Engineer
Water Distribution Planning Division
East Bay Municipal Utility District
375 Eleventh Street MS 701
Oakland, California 94607-4240

RE: LeLand Pressure Zone Reservoir Construction Project

Dear Mr. McGowan,

We have owned and occupied 131 Rudgear Drive since 1963 and have come to appreciate the unique qualities of our neighborhood. The natural terrain, the lot sizes, the placement of houses and the adjacent "Sugar Loaf" open space, has created a neighborhood atmosphere of tranquillity, privacy and openess. WBP-2

We did not attend the "informational" meeting held on December 8, 2005. Because the meeting notice and map gave little information, we were quite supprised to learn how advanced the planning for this proposed reservoir construction project was, and that the chosen access to the construction site would be up Rudgear Drive, through private properties, and then, somehow through the "Sugar Loaf" open space. WBP-3

For the following reasons, we oppose the use of Rudgear Drive and private property for an access road to the LeLand Pressure Zone Reservoir site:

1. Rudgear Drive is a narrow, winding street, in fair to poor condition. The irregular width varies from 15' to 18'. It has, three blind curves and no sidewalks. It is presently a hazardous and dangerous street to walk and drive on. One must use extreme caution. People tend to drive too fast and many residents take daily walks with pets and children. Also, there is an abundant deer population that will unexpectedly cross the street at any time, day or night. We believe the addition of the daily project truck traffic will be highly disruptive to the neighborhood and will only compound these already unsafe conditions and make Rudgear Drive an unacceptable, dangerous street to be on. WBP-4

   There are places where the street shows evidence of displacement, which to us, indicates sliding movement in the roadbed. We believe this street, due to its condition, would deteriorate rapidly because of the additional, continuous, daily WBP-5

truck traffic during the 3 or 4 years of construction. We believe the condition of this street is unsuitable for the proposed EBMUD construction access use. WBP-5

2. It is our understanding EBMUD has proposed the access road, from Rudgear Drive to the reservoir construction site, is to be located, somewhere, along the adjoining property line of 121 and 131 Rudgear Drive. Along this line, there is an existing 5' easement, on each property for drainage and sewer line use . No sewer line exists, but this small ravine serves as a natural drainage path for street water run-off from both sides of Layman Court, in front of 131 Rudgear Drive, and the ground water run-off from adjacent properties. The water flows naturally down this ravine, to the Sugar Loaf open space area, where it forms large pools, and in time, it is absorbed into the ground. An access road constructed in this location would disturb and forever alter the natural drainage system. WBP-6

   It is evident by the topography, that any road constructed, would require a huge amout of fill to achieve an acceptable grade for the construction vehicles to easly negotiate up to, or down from, Rudgear Drive. With this in mind, we are concerned with the amount of fill that will be required, the width of any road and the mitigatation of the natural drainage system. In addition, any road constructed in this location could invite public access to the open space and encourage criminal mischief and conflicts with adjacent private property owners. Also, there is no room on Rudgear Drive for additional public street parking, and certainly parking on the access road should not be allowed. WBP-7 WBP-8 WBP-9

   Our residence, 131Rudgear Drive, is in close proximity to the proposed access road location, and we would have a full view of the road all the way to Sugar Loaf open space. We would be exposed to noise, dust and disturbance created by the construction process, on a daily basis for 3 to 4 years, becoming permanent when completed. If this road is constructed, the tranquility, the privacy and the openess will, forever, be altered.

   Our property already has a road on two sides, We don't need a third one. WBP-10

   The least disruptive solution would be to build the access road adjacent to the I-680 / Rudgear Road 0ff-ramp beginning at the "Park & Ride" lot. WBP-11

Sincerely,

William a& Beverly Peterson

Comment Letter WBP

COMMENTS & QUESTIONS

by
William & Beverly Peterson
131 Rudgear Drive
Walnut Creek, California 94596
Email: bnbpeterson@gmail.com

September 12, 2006

Will the EBMUD Board of Directors be willing to to conduct a field trip to the project site, the Sugarloaf Open Space and travel up Rudgear Drive to observe and evaluate the on-site conditions before voting on the Draft EIR? WBP-12

During the public meetings, with EBMUD representatives, held on March 2, 2006 in Oakland, on July 20, 2006 at Heather Farms in Walnut Creek and on August 19, on Rudgear Drive in Walnut Creek, EBMUD staff representatives and attending neighbors commented on, and recognized, that the condition and alignment of Rudgear Drive could not support the heavy truck traffic required for the construction phase of the project. **Considering the condition of Rudgear Drive and other potential hazards mentioned in our letter, why shouldn't EBMUD eliminate Rudgear Drive as an access and exit route to and from the construction site?** ("Option "A", page 2-82, Volume 1 of 3 of the Draft EIR) WBP-13

It is our understanding EBMUD owns a parcel of land within the boundries of the Walnut Creek owned Sugarloaf Open Space. This parcel presently has no access road. **Why couldn't EBMUD utilize this parcel for an alternate Leland Pressure Zone reservoir location, and negotiate a perminent access easement with the City of Walnut Creek? Could the proposed reservoir size fit within the parcel? Could the reservoir be at a lower elevation on the site to achieve the proper pressure zone?** WBP-14

OR **Why not negotiate with the City of Walnut Creek to trade the EBMUD parcel for a more desirable reservoir location, such as alternate site #4 as shown on the Alternate Site Map, Appendex J, Vol.3 of 3 of the Draft EIR ?** WBP-15

OR **Why not negotiate with the City of Walnut Creek to trade the EBMUD parcel to acquire a less impacting access or exit route to the presently proposed reservoir site?** WBP-16

We do not favor the use of Rudgear Drive as an access or exit route for any construction or post construction phase of the proposed New Leland Pressure Reservoir project. If the project must remain in the proposed location, we would favor "Option "D" as described on page 2-82, Volume 1 of 3 of the Draft EIR. WBP-17

2.106 William and Beverly Peterson

Please note that the New Leland Pressure Zone Reservoir is examined at program level of detail in the WTTIP EIR. EBMUD is committed to engaging in a project-level EIR at an appropriate date in the future. Refer to Section 2.1.6, Master Response on the New Leland Pressure Zone Reservoir Alternatives, for more information.

WBP-1 The commenters' opposition to a proposed access route to the New Leland Pressure Zone Reservoir is acknowledged. Refer to subsequent responses.

WBP-2 Comment acknowledged.

WBP-3 The commenter is expressing surprise at the level of planning already completed for the New Leland Pressure Zone Reservoir. The project is evaluated at a program level in the DEIR. Refer to Section 2.1.1, Master Response on the Program and Project Level Distinctions.

WBP-4 The commenters' concerns regarding traffic safety are acknowledged. These issues will be evaluated in detail in a subsequent project-level EIR once the proposed New Leland Pressure Zone Reservoir project is better defined. Traffic control plans would be developed during the construction phase of the project (see Measure 3.8-1, DEIR pp. 3.8-13 through 3.8-15).

WBP-5 Implementation of mitigation measures similar to DEIR Measure 3.8-7 would require road conditions to be documented for all routes that will be used by project related vehicles. Roads damaged by construction will be restored to equal to their condition before the construction began.

WBP-6 The New Leland Pressure Zone Reservoir is a program level element of the DEIR. The identified site requires further study and evaluation before a final determination of the access road can be made. Alternative sites will also be examined in a subsequent project-level EIR. The access road option near 121 and 131 Rudgear Drive is currently anticipated to be a temporary access road. Once the permanent access road is completed the property will be restored to its preconstruction condition, including existing drainage features. Implementation of mitigation measures similar to Measures 3.5-1a and 3.5-1b (DEIR p. 3.5-31) would reduce any impacts to drainage features during construction.

WBP-7 The design details the comment is concerned with have yet to be determined but will be addressed in detail in the future project-level EIR on the project.

WBP-8 The issues raised in the comment will be addressed in the future project-level EIR on the project.

WBP-9 Parking issues raised in the comment will be addressed in the future project-level EIR on the project (see DEIR p. 3.8-19 for evaluation of parking issues for project-level elements).

WBP-10 The environmental issues raised in the comment will be addressed in the future project-level EIR on the project.

WBP-11 See **Response RS-5**.

WBP-12 EBMUD staff and Director Coleman met with Rudgear Road residents about this project on August 19, 2006 (note that the commenters' letter is dated January 2006). The New Leland Pressure Zone Reservoir will not be presented to the Board of Directors for approval until the District prepares a project-level EIR. During that CEQA process, another public meeting likely will be scheduled specifically to address the New Leland Pressure Zone Reservoir.

WBP-13 The project-level EIR to be prepared for the New Leland Pressure Zone Reservoir will fully evaluate feasible access route alternatives to the proposed site. If the use of Rudgear Road could not feasibly accommodate the type of construction vehicles that would travel to and from the reservoir site then that route would be eliminated from further consideration.

WBP-14 Please see **Response HME-1**. The property is not at the proper elevation.

WBP-15 Please see **Responses TS-15** and **WC-37,** and Section 2.1.3, Master Response on EBMUD Obligations to Comply with Local Ordinances, Obtain Local Agency Approvals and Permits, and Pay Local Agency Fees. A trade of this nature may be restricted by the provisions of the Municipal Park Abandonment Law, in particular Government Code Section 38502, but EBMUD will further examine these alternatives.

WBP-16 Please see **Response WBP-15**, above. EBMUD will further examine alternatives as part of the project-level analysis.

WBP-17 The commenters' preference for Access Route Option D is noted.

Comment Letter WEH

From: Elizabeth Haughey [mailto:ehaughey@prodigy.net]
Sent: Thursday, September 07, 2006 10:20 AM
To: Water Treatment Transmission Improvements Program
Cc: Pete-home
Subject: Orinda Water Filter Plant expansion

EBMUD Board of Directors:

We are writing this email in response to the proposed expansion of the EBMUD Orinda Water Filter Plant. We have two children, one of which currently attends Wagner Ranch Elementary School and also own a home near the Orinda Water Filter Plant. We are strongly opposed to the expansion of the Plant for the reasons stated below. WEH-1

- **The Draft EIR that has been submitted is ill conceived and problematic on many levels.** WEH-2
- **There is no clearly stated need or requirement in the Draft EIR as to why EBMUD must upgrade and expand the Orinda Filter Plant.** WEH-3
- **Locating this large and expanding facility in a residential community is impractical, risky and not necessary.** WEH-4
- **Removal of the sports fields will hurt the community and deprive children of much needed recreational playing fields.** WEH-5
- **Your proposed expansion is contiguous to an elementary school.** WEH-6
- **Additional structures proposed will be unattractive and will counter the semi-rural charter in the City of Orinda.** WEH-7
- **Camino Pablo is designated a scenic corridor. EBMUD is planning to build multiple multi-story buildings and huge storage tanks that will be visible from the corridor and therefore violate the scenic corridor designation.** WEH-8
- **No consideration has been given to new technologies for water treatment that would eliminate the need for large storage tanks and additional buildings for water treatment and storage.** WEH-9
- **Other EBMUD locations have not been considered as part of this Draft EIR.** WEH-10
- **There are other EBMUD locations where a filter plant could be constructed or expanded that would have NO impact on the City of Orinda and its residents.** WEH-11
- **Our property values will be negatively impacted because of the expansion of the Orinda Filter Plant.** WEH-12
- **The community, its residents and The City of Orinda oppose the expansion of EBMUDs Orinda Filter Plant.** WEH-13

Given the measure to which this expansion would affect the parents, taxpayers and all community residents, we would encourage you to actively and aggressively solicit community feedback and to share the information for the rational for expanding the Orinda Plant, well before committing to this project. WEH-14

Please feel free to contact us at ehaughey@prodigy.net, or by phone at (925) 254-3883 should you wish to discuss this further.

Sincerely,

Comment Letter WEH

William and Elizabeth Haughey
75 Monte Vista Road

2.107 William and Elizabeth Haughey

Many of the comments in this letter are similar to comments in the letter submitted by Ann Sharf. Consequently, many of the responses below cross-reference to responses in Ms. Sharf's letter.

WEH-1 Comment noted.

WEH-2 The opinion regarding the DEIR is noted. Please refer to subsequent responses regarding more specific concerns.

WEH-3 Please see **Response AS-2**.

WEH-4 Please see **Response AS-3**.

WEH-5 Please see **Responses AS-4**, **BM-2** and **BM-11**.

WEH-6 Please see **Response AS-5**.

WEH-7 Please see **Response AS-6**.

WEH-8 Please see **Response AS-7**.

WEH-9 Please see **Responses ORIN-118** through **ORIN-120,** and **Response BM-9**.

WEH-10 Please see **Response AS-9**.

WEH-11 Please see **Response AS-9**.

WEH-12 Please see Section 2.1, Master Response on Social and Economic Costs.

WEH-13 Please see **Response AS-11**.

WEH-14 This comment requests that EBMUD solicit community feedback and share information for the rationale for the proposed improvements at the Orinda WTP before approving the project. The District has held numerous public meetings, including two public meetings in Orinda, to solicit community feedback and inform the public of the project. Notices regarding availability of this Response to Comments document will be provided to everyone who requested such notice (including commenters and those who filled out sign-in sheets at the public meetings held during the DEIR comment period). The District will hold a public hearing, scheduled for December 12, 2006, to solicit public feedback on the Final EIR prior to approval of project-level elements by the District's Board of Directors. Please note that program-level elements will not be approved until after additional environmental documentation (and additional public outreach associated with that documentation) is completed.

EBMUD

Water Treatment & Transmission Improvements Program
Draft Environmental Impact Report

WATER DISTRIBUTION
SEP 18 2006
PLANNING DIVISION

Name: William Greif MD

Address: 3386 Freeman Rd

Email: blemGreif@ Comcast. net

COMMENTS:

We do not want the pumping plant behind homes in our neighborhood - put it across the street where it will be next to a Gas Station and will be adjacent to the land and home which it pumps water for - we are very upset that EBMUD would do this to our Neighborhood

WG-1

Submit this form as you leave this meeting, mail or hand deliver the form to EBMUD at Mail Stop # 701, 375 Eleventh Street, Oakland, CA, 94607, or email comments to Judy Zavadil, Senior Project Manager, at wttip@ebmud.com.

NOTE: Comments on the Draft EIR must be received by EBMUD by September 18, 2006, at 4:30 pm. Comments should be in writing and include your name and address.

2.108 William Greif

WG-1 EBMUD staff is not recommending selection of the Tice Pumping Plant alternative site. However, approval of WTTIP projects and project locations is at the discretion of the EBMUD Board of Directors.

Comment Letter WJC

WAYNE AND JO ALICE CANTERBURY

156 LOMBARDY LANE
ORINDA, CA 94563
925 254-4284
925 253-0249
wayne@canterburyraub.com
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East Bay Municipal Utility District
c/o Judy Zavadil, Senior Project Manager
P.O. Box 24055, MS701
Oakland, CA 94623-1055

Re: Happy Valley Pumping Plant
Water Treatment and Transmission Improvement Project

This letter is written in response to EBMUD's request to comment on the draft EIR for the Water Treatment and Transmission Improvement Project.

My wife, Jo Alice, and I object to the Happy Valley Pumping Plant component of the project insofar as it calls for the installation of a pumping plant on Lombardy Lane near Van Ripper Road. Our home adjoins the proposed site to the west. Two of our bedrooms are oriented near the boundary line.

We have read the draft EIR and considered the elements of the plan as you kindly explained them at the site visit you attended earlier this month. We understand EBMUD's explanation for the need to upgrade service in the Happy Valley area, but believe that the Lombardy site is unsuitable for the pumping plant.

Fortunately, the alternative site for the plant identified by EBMUD on Miner Road at Camino Sobrante offers a plainly better choice in virtually all respects. The parcel is owned by the Ted Urban family. I have spoken to Ted on the matter and he informed me that he would agree to sell the property to EBMUD. WJC-1

Lombardy Site

The Lombardy property is owned by Bob and Carlotta Wooldridge. It comprises almost two acres and is one of the choicest buildable lots in Orinda. It is densely covered with natural vegetation and populated by several ancient oak trees. Two creeks converge at its southern end. The immediate neighborhood is uniquely quiet, particularly at night.

Miner Road Site

The Miner Road site is an open grassy field. It is the southern part of a parcel divided by a steeply banked creek and heavy foliage. A home is situated on the northern

side. The site cannot be subdivided or easily put to any use that would serve the residence. The two houses flanking the property are sited a considerable distance from the lot. Their garages, drives, and walls and fences separate the lot from their living areas. WJC-1

Proposed Pumping Plant

The pumping plant will consist of two industrial pumps and a large electric transformer *that will operate at night.* The pumps would be housed in a structure approximately 60 feet by 40 feet in size. A drive and parking area would surround the facility. During the estimated 2-year construction stage of the project, the site would serve as a corporate yard and used to park earth-moving and other large vehicles and store equipment and materials.

Summary of Objections and Reason for Selecting The Miner Road Site

1. Noise

The character of the Lombardy Lane area is defined by its tranquility, particularly during the late night and early morning hours. The EIR acknowledges that substantial noise would be emitted by the pump and the transformer. It does not comment on the cumulative effect of the two noises, one of which would likely be a hum and the other a whine. The proposed siting of the pumps is within feet of the bedroom of George and Perry Linton, the neighbors to the immediate east of the proposed site. WJC-2

The use of the Miner Road site, by contrast, would have little noise impact on the surrounding community, as the two adjacent houses buffered from the pump and transformer sounds by the placement of their garages. WJC-3

2. Traffic and Safety

In order to reach the Lombardy Lane site from Miner Road, trucks and equipment would have to travel the additional one-mile distance past more than 40 homes fronting the street. That stretch of road services the two arterial roads leading to Sleepy Hollow School and the Sleepy Hollow Swim & Tennis Club, both of which are heavily used by parents transporting children to the facilities. The Lombardy Lane site, itself, is located on a partially blind curve that presents additional safety concerns. WJC-4

Use of the Miner Road property would shorten the distance that trucks and equipment would travel from Camino Pablo and have less impact on school and swim club traffic. Additionally, it can be accessed by both Miner Road and Camino Sobrante. WJC-5

3. Trees

The EBMUD plan for Lombardy Lane calls for the removal of at least two heritage oaks. These trees are more than 150 years of age and contribute to the beauty of the neighborhood. No trees of any note would have to be removed at the Miner Road site. Additional trees and landscaping could be installed at the site following construction. WJC-6 WJC-7

4. Acquisition Cost

The Lombardy Lane site is a large, premier, buildable, parcel. Its owners are unwilling to sell it to EBMUD voluntarily. They would be entitled to the full value in the event EBMUD forced the sale through use of its eminent domain powers. An environmental or acquisition dispute could be litigated for years. WJC-8

The Miner Road parcel is considerably smaller and has limited use. While the Urbans would be entitled to full value, there is no question that the price resulting from a voluntarily negotiated sale would be much more favorable to EBMUD and its rate payers. WJC-9

In summary, use of the Lombardy Lane site for the pumping plant is inappropriate and strongly opposed by the owners and residents in the Sleepy Hollow community. The Miner Road property is in almost every respect uniquely suitable for the proposed use and its owners do not object to its acquisition. The EIR itself identifies the Miner Road site as a viable alternative. Given these circumstances, we urge EBMUD to adopt the alternative site for installation of the Happy Valley pumping plant.

Thank you for your consideration.

Very truly yours,

Wayne Canterbury

Jo Alice Canterbury

cc: EBMUD Board of Directors
Mayor and Council Members
City of Orinda
Emmanuel Ursu,
Planning Department, City of Orinda

2.109 Wayne and Jo Alice Canterbury

Many of the comments in this letter are similar copies of comments in the letter submitted by Robert Wooldridge. Consequently, many of the responses below cross-reference responses for the Robert Wooldridge letter (RCW1).

WJC-1 The commenters' objection to the proposed Happy Valley Pumping Plant site and preference for the alternative Happy Valley Pumping Plant site are acknowledged. Please note that District staff is recommending that the Board of Directors approve the alternative site for the Happy Valley Pumping Plant (on Miner Road), after discussions with the owner of this parcel and consideration of other information. (In regard to the alternative site's owner's willingness to sell, please refer to **Response TU-1**.) As indicated on DEIR p. 6-2, the decision is at the discretion of the Board and the EBMUD Board of Directors could select the Happy Valley Pumping Plant alternative site described on DEIR p. 6-33 in lieu of the proposed site.

WJC-2 See **Response RCW1-3** regarding the combined noise of the transformer and pumps.

WJC-3 Refer to **Response RCW1-4**.

WJC-4 The concern regarding local traffic is acknowledged. See **Response RCW-59**.

WJC-5 The concern regarding school and swim club traffic is acknowledged. See **Response RCW-58**.

WJC-6 The concern regarding oaks is acknowledged. See **Response RCW-39**.

WJC-7 See **Response RCW1-8**.

WJC-8 EBMUD has discussed the project with the Lombardy Lane site owner. See **Response RCW1-1**.

WJC-9 See **Response RCW1-1** and **Response TU-1**..

Comment Letter WJC1

WAYNE AND JO ALICE CANTERBURY

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Re: Happy Valley Pumping Plant
Water Treatment and Transmission Improvement Project

Dear Ms. Zavadil,

This confirms our conversation following my July 29 letter objecting to the use of the Lombardy Lane site for installation of a the Happy Valley pumping plant, in which you noted that the size of the proposed pump enclosure is 30 x 40 feet, not the 40 x 60 that I had understood. This information is encouraging, as the smaller footprint would render the plan all the more compatible with the *Miner Road* location. WJC1-1

Very truly yours,

WS Canterbury

Wayne S. Canterbury

cc: EBMUD Board of Directors
Mayor and Council Members
City of Orinda
Emmanuel Ursu,
Planning Department, City of Orinda

2.110 Wayne and Jo Alice Canterbury

WJC1-1 The commenter's objection to construction of the Happy Valley Pumping Plant is noted. The preliminary design for the Happy Valley Pumping Plant has a footprint of approximately 30 feet by 50 feet. The facility would a single-story, 1,500 square foot structure.

3. Text Revisions

3.1 and 3.2 Introduction and Text Revisions

ESA

CHAPTER 3
Text Revisions

3.1 Introduction

The following revisions have been made to the Draft EIR (DEIR) text. These corrections include: minor corrections made by the EIR authors to improve writing clarity, grammar, and consistency; corrections, additions, or clarifications requested by a specific comment; or staff-initiated text changes to update information presented in the DEIR. The text revisions are organized by the chapter and page number that appear in the DEIR. ~~Strikethrough~~ text presented in this section indicates text that has been deleted from the DEIR. Text that has been added to the Draft EIR is presented as <u>underlined</u>.

3.2 Text Revisions

As a staff initiated change, Figure 3.3-OWTP-5 following Section 3.3 in the DEIR and Figure 5.1 on DEIR p. 5-33 were slightly revised to correct errors (. The revisions do not materially affect the analysis or conclusions presented in the DEIR. The revised figures are included at the end of this section.

Chapter 2. Project Description

The last paragraph on DEIR p. 2-14 has been revised as follows:

> Under Alternative 1, the capacity of the Lafayette WTP would be expanded to meet this need and would include additional operational capacity to meet short-term water delivery requirements. Under Alternative 2, operations at the Orinda, Sobrante and Upper San Leandro WTPs would be altered such that the Orinda WTP could make up for the decommissioning of the Lafayette WTP.~~the Orinda WTP would meet this need~~. Under either Alternative 1 or 2, the Walnut Creek WTP operational capacity must be increased to meet short-term water delivery requirements for the Leland Pressure Zone.

Table 2-3 on DEIR p. 2-17 has been revised as shown on the following page.

The first full paragraph on DEIR p. 2-20 has been revised as follows:

> The purpose of the LT2 Rule is to reduce the incidence of disease associated with *cryptosporidium* and other pathogens in drinking water. The rule applies to all public water systems that use surface water. Key provisions in the LT2 Rule include (among other things) source water monitoring, criteria for the use of *cryptosporidium* treatment and control processes, and additional treatment requirements for higher risk systems (i.e., those with the highest source-water levels of *cryptosporidium*). The rule does not likely require any major changes to EBMUD's conventional plants (Upper San Leandro, Sobrante, and San Pablo); however, at the in-line WTPs (Walnut Creek, Lafayette, and Orinda), flocculation and sedimentation treatment of the raw water may eventually be needed. The WTTIP includes the addition of high-rate sedimentation processing at the in-line WTPs as a potential future project, which is evaluated programmatically in this EIR. The WTTIP also includes the addition of ultra-violet light disinfection systems at the Walnut Creek, Lafayette and Orinda WTPs as potential future projects to comply with the LT2 Rule. Otherwise, EBMUD compliance with the LT2 Rule dovetails with compliance with the *California Cryptosporidium Action Plan*, as described below.

The following is inserted as the third full sentence under the heading "Infrastructure Replacement and Technology Upgrades" on DEIR p.2-21:

> Ozonation system equipment at Upper San Leandro and Sobrante WTPs is nearing the end of its useful life and requires updating.

REVISED TABLE 2-3
SUMMARY OF NEED ADDRESSED BY SPECIFIC WATER TREATMENT IMPROVEMENT PROJECTS

Facility & Project	Alternatives	Demand	Disinfection Byproduct Rules (Federal)	Surface Water Treatment Rules (Federal)	California Cryptosporidium Action Plan (State)	NPDES Permit (State)	Infrastructure and Technology
Lafayette WTP							
Increase Capacity from 25 mgd to 34 mgd	1	x					x
Clearwells	1	x					x
Chlorine Contact Basin	1		x				x
Blower Building	1						x
Backwash Water Recycle System	1	x			x		x
Sodium Hypochlorite Storage and Feed Building (Lafayette Aqueduct and WTP)	1,2		x				
Raw Water Bypass Pipe	1						x
Leland and Bryant Pumping Plants and Pipelines	1	x					x
Electrical Substation	1	x					x
Lafayette Reclaimed Water Pipeline	1				x		x
High-Rate Sedimentation Units [a]	1			x			
Ultraviolet Light Disinfection [a]	1			x			
Orinda WTP							
Backwash Water Recycle System	1,2				x	x	
Clearwell	2	x					
Los Altos Pumping Plant No. 2	2	x					
Orinda-Lafayette Aqueduct	2	x					
Electrical Substation	2	x					
Additional Clearwell [a]	1,2			x[b]			
High-Rate Sedimentation Units [a]	1,2			x			
Chlorine Contact Basin [a]	1,2		x				
Ultraviolet Light Disinfection [a]	1,2			x			
Walnut Creek WTP							
Increase Capacity from 96 mgd to 115 mgd (add filters)	1,2	x					
Leland Pumping Plant	1,2	x					x
High-Rate Sedimentation Units [a]	1,2			x			
Ultraviolet Light Disinfection [a]	1,2			x			
Sobrante WTP							
Ozone Upgrades	1,2						x
Filter-to-Waste Equalization Basin	1,2						x
Backwash Water Equalization Basin	1,2						x
High-Rate Sedimentation Units	1,2						x
Chlorine Contact Basin	1,2		x				
Upper San Leandro WTP							
Ozone Upgrades	1,2						x
Filter-to-Waste Equalization Basin	1,2						x
Distribution System Improvements	1,2	x		x[b]			x

[a] Program-level projects

[b] As it relates to water aging and mixing

The following has been inserted as the first paragraph under the heading "2.4.6 Upper San Leandro Water Treatment Plant" on DEIR p. 2-54:

> Like the Sobrante WTP, the ozonation system at the Upper San Leandro WTP is undersized for handling poor raw water quality episodes occasionally experienced at the WTP. In addition, the rate at which the WTP's filters can be backwashed is limited because the backwash settling basins are also used as filter-to-waste basins when the filters are put back in service. The new filter-to-waste basin would enable the filters to be returned to service more quickly.

The first paragraph on DEIR p. 2-59 has been revised as follows:

> Map D-OWTP-2 shows the proposed layout for the Orinda WTP under Alternative 2. Map D-OWTP-3 provides two cross-sections drawings for Orinda WTP under Alternative 2. Section A is through the proposed clearwell and Los Altos Pumping Plant No. 2. Section B is through the Backwash Water Recycle System. ~~The Orinda WTP under this alternative would produce 175 mgd (average annualized rate), but would operate at the slightly higher rate of 180 mgd, an increase of 5 mgd over existing conditions. (It would also operate at this slightly higher rate under Alternative 1 during peak demand periods).~~ The Orinda WTP would operate at the slightly higher rate of 180 mgd, an increase 5 mgd over existing operations, during peak demand periods. The additional capacity would not require any changes to treatment processes as it can be accomplished by one of three existing standby filters. As with Alternative 1, the existing backwash water treatment system would be upgraded to treat and recycle backwash water to the head of the WTP. In addition, the facilities needed to store, pump, and convey treated water to the Lafayette WTP would be constructed; these proposed facilities include ~~a clearwell,~~ a pumping plant, a clearwell to support the pumping plant, an electrical substation, and the Orinda-Lafayette Aqueduct (the last facility is described in Section 2.5.3).

Chapter 3. Environmental Settings, Impacts, and Mitigation Measures

3.2 Land Use, Planning, and Recreation

The first sentence of the first paragraph on DEIR p. 3.2-6 has been revised as follows:

> The tunnel portion of this project would be constructed entirely within Orinda, from the Orinda Sports Field west of the Orinda WTP to an exit shaft on East Altarinda Road, near the St. Stephens Drive/El Nido Ranch Road intersection (see Maps C-OLA-1 to C-OLA-5).

The third paragraph on DEIR p. 3.2-6 has been revised as follows:

> ***Orinda-Lafayette Aqueduct***
>
> The proposed location of the exit shaft is in Orinda, just west of the St. Stephens Drive/ El Nido Ranch Road intersection (see Map C-OLA-2). The exit shaft site is a narrow parcel

of undeveloped land between the Highway 24 right-of-way and Altarinda Drive, adjacent and to the east of a residence. ~~The tunnel portion of this project would be constructed entirely within Orinda, from the Orinda Sports Field west of the Orinda WTP to an exit shaft near the St. Stephens Drive/El Nido Ranch Road intersection (see Maps C-OLA-1 to C-OLA-5).~~ The tunnel would predominantly run beneath low-density residential land uses. The pipeline from the tunnel exit shaft would be constructed along El Nido Ranch Road, which has single-family residential development on the north side and Highway 24 and the Bentley School on the south side. The pipeline alignment would cross under Highway 24 from the Bentley School parking lot, then parallel Mt. Diablo Boulevard to the Lafayette WTP in the vicinity of Walter Costa Trail and the Lafayette Reservoir Recreation Area.

The first paragraph on DEIR p. 3.2-11 has been revised as follows:

Sunnyside Pumping Plant

This proposed new pumping plant would be constructed on privately owned, currently undeveloped property located in Lafayette, on the Orinda border near the intersection of Happy Valley Road and Sundown Terrace (see Map C-SUNPP-1). The driveway to the proposed site, currently being used as access to the parcel, is within City of Orinda, and is identified by the City of Orinda as a parcel dedicated for preservation by the City (City of Orinda, 2006). The project site is adjacent to an existing horse paddock. EBMUD would purchase the project site prior to project construction. The site is surrounded by low-density single-family residential development and open space.

The fourth paragraph on DEIR p. 3.2-14 has been revised as follows:

The Happy Valley Pumping Plant, Sunnyside Pumping Plant, and Tice Pumping Plant project components would be located at properties that are currently privately owned. These properties are located within predominantly single-family residential and open space areas. The Highland Reservoir would be located in a relatively undeveloped area of the Lafayette Reservoir Recreation Area. The City of Orinda indicates that the driveway that would provide site access to the proposed Sunnyside Pumping Plant is on a parcel dedicated for preservation by the City of Orinda (City of Orinda, 2006). The proposed project component would be subject to an encroachment permit from the City of Orinda, which would include discussion of permissible uses for the proposed parcel. The proposed project components would be relatively small, compact facilities that would not disrupt or divide the existing communities they are located within; therefore, the Happy Valley Pumping Plant, Highland Reservoir, Sunnyside Pumping Plant, and Tice Pumping Plant project components would result in a less-than-significant land use impact.

3.3 Visual Quality

Table 3.3-4 on DEIR p. 3.3-21 has been revised as shown on the following page.

Measure 3.3-1 on DEIR p. 3.3-23 has been revised as follow:

> **Measure 3.3-1:** For stationary (non-pipeline) projects expected to be constructed over a period of one year or more, the District will require the contractor to ensure that construction-related activity is as clean and inconspicuous as practical by storing building materials and equipment within the proposed construction staging areas or in areas that are generally away from public view and by removing construction debris promptly at regular intervals and placing black fabric fence screening on fences where feasible.

The following text has been added as the last bullet on Measure 3.3-2a DEIR p. 3.3-25:

- The District will landscape areas that will not be disturbed by construction *before construction beings* in order to assist in preservation of views at the Walnut Creek WTP and proposed Ardith Reservoir site.

Measure 3.3-2c on DEIR p. 3.3-36 has been revised to include the following:

- For the Walnut Creek WTP, EBMUD will meet with the City to discuss integration of the design of the new Leland Pumping Plant to be consistent with the surrounding neighborhood environment and the existing WTP.

As a staff-initiated change, text on DEIR p. 3.3-47 is revised as follows:

Project Operations

The District would install low-impact, vandal-resistant, motion-sensor lights for nighttime use during operations at some of the facility sites, including the new facilities at all of the WTPs (except at Lafayette WTP under Alternative 2). EBMUD would also install low-impact, vandal-resistant, motion-sensor lights at the Fay Hill and Ardith Reservoirs and at the ~~Happy Valley,~~ Sunnyside, Tice, and Withers Pumping Plant sites. New lighting would be focused on specific areas to minimize or avoid light spill onto adjoining properties. Because proposed exterior lighting would be motion-sensor lighting, it would only be activated in the event that maintenance workers need to access the facility at night. Under normal operations, new exterior lighting would be turned off at the end of the workday. Given its infrequent use, and the design of new lighting to avoid light spill on adjoining properties, new lighting proposed for the WTTIP projects is not expected to create substantial new sources of light and glare. Therefore, the project would not have a substantial effect on existing nighttime visual conditions at the facility sites or in surrounding areas.

REVISED TABLE 3.3-4
SUMMARY OF POTENTIAL PROJECT-LEVEL VISUAL IMPACTS

Facility	Impact 3.3-1 Short-Term Visual Effects during Construction	Impact 3.3-2 Alteration of Appearance of WTTIP Sites	Impact 3.3-3 Effects on Views	Impact 3.3-4 Effects on Scenic Vista	Impact 3.3-5 New Sources of Light and Glare
Lafayette WTP					
Alternative 1	LTS	SM	SM	LTS	SM
Alternative 2	LTS	SM	SM	LTS	LTS
Orinda WTP					
Alternative 1 or 2	LTS	SM	SM	LTS	SM
Walnut Creek WTP					
Alternative 1 or 2	LTS	SM	SM	LTS	SM
Sobrante WTP					
Alternative 1 or 2	LTS	SM	SM	LTS	SM
Upper San Leandro WTP					
Alternative 1 or 2	LTS	LTS	LTS	LTS	SM
Orinda-Lafayette Aqueduct					
Alternative 2 only	LTS	LTS	LTS	LTS	SM
Ardith Reservoir/Donald Pumping Plant	LTS	SM	SM	LTS	SM
Fay Hill Pumping Plant and Pipeline Improvements	LTS	LTS	LTS	LTS	SM
Fay Hill Reservoir	LTS	LTS	LTS	LTS	SM
Glen Pipeline Improvements	LTS	LTS	LTS	LTS	LTS
Happy Valley Pumping Plant and Pipeline	LTS	SM	SM	LTS	LTS~~SM~~
Highland Reservoir and Pipelines	LTS	SU	SU	SU	SM
Lafayette Reclaimed Water Pipeline	LTS	SM	SM	LTS	SM
Leland Isolation Pipeline and Bypass Valves	LTS	SM	SM	LTS	LTS
Moraga Reservoir	LTS	LTS	LTS	LTS	LTS
Moraga Road Pipeline	LTS	SM	SM	LTS	LTS
Sunnyside Pumping Plant	LTS	SM	SM	LTS	SM
Tice Pumping Plant and Pipeline	LTS	SM	SM	LTS	SM
Withers Pumping Plant	LTS	SM	SM	LTS	SM

NOTE: With the exception of the Lafayette Creek crossing shown in Map C-HIGHRES-1, the Lafayette Reclaimed Water Pipeline would be constructed concurrently with and would be co-located with the Bryant and Leland Pipelines or the Orinda-Lafayette Aqueduct (depending on whether Alternative 1 or Alternative 2 is selected), as well as with the Highland Reservoir pipeline. Therefore, the Lafayette Reclaimed Water Pipeline impacts included in this table and throughout this section are for the Lafayette Creek crossing only. Impacts resulting from installation of the remaining portions of the Lafayette Reclaimed Water Pipeline are included within the discussions of the other above-referenced projects.

SM Significant Impact, Can Be Mitigated
SU Significant Impact, Unavoidable
LTS Less-Than-Significant Impact
– No Impact

3.4 Geology, Soils, and Seismicity

Measure 3.4-1 on DEIR p. 3.4-26 has been revised as follows:

> **Measure 3.4-1:** During the design phase for all WTTIP project components that require ground-breaking activities (excluding pipelines), the District will perform site-specific design-level geotechnical evaluations to identify adverse slope instability conditions and provide recommendations to reduce and eliminate potential slope hazards in the final design and if necessary, throughout construction. For all pipelines located in landslide hazard areas, appropriate piping material with the ability to deform without rupture (e.g. ductile steel) will be used. For large diameter pipes (greater than 12 inches diameter) located in high landslide hazard areas, a geotechnical evaluation will be conducted. The geotechnical evaluations will include detailed slope stability evaluations, which could include a review of aerial photographs, field reconnaissance, soil testing, and slope stability modeling. Slope stability evaluations would be completed for the Fay Hill Reservoir, Walnut Creek WTP, Sobrante WTP, Ardith Reservoir/Donald Pumping Plant, Happy Valley Pumping Plant, Highland Reservoir, Lafayette Reclaimed Water Pipeline, Moraga Reservoir, Moraga Road Pipeline, Sunnyside Pumping Plant, Tice Pumping Plant, and Withers Pumping Plant. Facilities design and construction will incorporate the slope stability recommendations contained in the geotechnical analysis. Unstable natural slopes, engineered slopes, and localized slope repairs shall be evaluated by a California registered engineer or certified engineering geologist and measures prescribed by the registered professional shall result in a factor of safety of at least 1.3 under pseudo-static (earthquake) loads and 1.5 under static loads. Measures to stabilize the slopes and achieve the required factor of safety may include the following:
>
> - Appropriate slope inclination (not steeper than 2 horizontal to 1 vertical)
> - Slope terracing
> - Fill compaction
> - Soil reinforcement
> - Surface and subsurface drainage facilities
> - Engineered retaining walls
> - Buttresses
> - Erosion control measures
>
> Mitigation measures included in the geotechnical report will be incorporated into the project construction specifications and become part of the project.

Measure 3.4-3a on DEIR p. 3.4-27 has been revised as follows:

> **Measure 3.4-3a:** During the design phase for all WTTIP project components that require ground-breaking activities (excluding pipelines), the District will perform site-specific design-level geotechnical evaluations to identify geologic hazards and provide recommendations to mitigate those hazards in the final design and during construction. The geotechnical evaluations, conducted by a California registered professional engineer, will include site-specific investigations, which may include, if necessary, soil sampling and testing to determine the presence and characteristics of potentially compressible soils, the engineering properties of the proposed foundation material, the depth and thickness of soil layers, and the depth to groundwater. Based on the findings of the investigations, the registered professional shall formulate adequate measures to reduce the expansivity index of the site soil to a low expansion potential (Expansivity Index (EI) less than 50) as defined

in the 1997 Uniform Building Code. For compressible soils, the registered professional would develop and implement a strategy to improve the soil to achieve settlements below what the proposed structure can tolerate, as determined through laboratory soils testing and professional judgment. Feasible mitigation measures, as listed below, are standard engineering practice and are common engineering design strategies used to overcome problematic soil conditions.

- Removal and replacement of problematic soil
- Soil pre-compression, using vertical drains, surcharge fills or dynamic compaction
- Installation of deep foundations (i.e., piles, drilled piers)
- Deep mixing of compressible or expansive soils with stabilizing agents

Mitigation measures included in the geotechnical evaluations will be incorporated into the project design specifications and would become part of the project.

Measure 3.4-3b on DEIR p. 3.4-28 has been revised as follows:

Measure 3.4-3b: The District will include in the contract specifications that any fill will be selected, placed, compacted, and inspected in accordance with plans and specifications prepared by a licensed professional engineer in accordance with standard and accepted engineering protocols (inspection, compaction-density testing, in-situ field testing) necessary to prevent engineered fill soils from becoming expansive or compressible after placement.

Measure 3.4-4 on DEIR p. 3.4-32 has been revised as follows:

Measure 3.4-4: During the design phase for all WTTIP project components that require ground-breaking activities (excluding pipelines), the District will perform site-specific design-level geotechnical evaluations to identify geologic hazards and provide recommendations to mitigate those hazards in the final design and during construction. The design-level geotechnical evaluations will include the collection of subsurface data for determining liquefaction potential. The evaluation and mitigation of liquefaction hazards shall be in conformance with the California Geological Survey's Special Publication 117, *Guidelines for Evaluating and Mitigating Seismic Hazards in California*, which provides methods to identify, evaluate, and reduce the hazards and earthquake-induced landslide hazards as required under the Seismic Hazards Mapping Act (SHMA) of 1990. The evaluation and mitigation shall be conducted by a California registered professional engineer or California certified engineering geologist. When site-specific testing identifies a potential for significant liquefaction-induced ground failures and damage to project facilities, appropriate feasible measures, as recommended in SP-117, shall be developed and incorporated into the project design. Because the project sites are not located in an area zoned under the SHMA, review of the investigation report by the CGS is not required. For all pipelines located in liquefaction hazard areas, appropriate piping material with the ability to deform without rupture (e.g. ductile steel) will be used. For large diameter pipes (greater than 12 inches diameter) located in high liquefaction hazard areas, a geotechnical evaluation will be conducted. ~~The performance standard to be used in the geotechnical evaluations for mitigating liquefaction hazards will be minimization of the hazards.~~ Measures to minimize significant liquefaction hazards could include the following:~~, unless the site-specific soils analyses dictate otherwise~~:

- Densification or dewatering of surface or subsurface soils
- Construction of pile or pier foundations to support pipelines and/or buildings,
- Removal of material that could undergo liquefaction in the event of an earthquake, and replacement with stable material,
- Modification of site geometry to reduce the risk of translational site instability.

3.5 Hydrology and Water Quality

Table 3.5-2 on DEIR p. 3.5-24 has been revised as shown on the following page.

Based on Comment ORIN-52, text on several pages has been revised. The DEIR page being revised is noted below. [Note that only paragraphs with new or deleted text are included.]

DEIR p. 3.5-42:

Projects that involve the creation or replacement of less than 10,000 square feet of impervious surfaces and those that are constructed in a public right-of-way would not be subject to the C.3 requirements. ~~In addition, the creation or replacement of impervious surfaces at the WTPs would not be subject to the C.3 provisions because stormwater management at these facilities is addressed under the Regionwide General NPDES Permit for Discharges from Surface Water Treatment Facilities for Potable Supply and the site-specific BMP plan prepared for each WTP. However, the BMP plan would be revised to address any changes in stormwater runoff and potential stormwater pollutant sources, and the changes in the plan would be subject to approval by the RWQCB.~~ Therefore, water quality impacts related to an increase in impervious surfaces at <u>these projects</u> ~~each of the WTPs, the replacement of impervious surfaces in a public right-of-way, and the creation or replacement of less than 10,000 square feet of impervious surfaces~~ would be less than significant, and no mitigation is required.

<u>In accordance with the municipal stormwater permit, projects that create or replace 10,000 square feet or more of impervious surfaces would be required to incorporate site design and landscape features to maximize infiltration, promote retention or detention, slow runoff, and minimize impervious surfaces so that post-development pollutant loads from the site are reduced to the maximum extent possible. Types of site planning concepts that could be considered include treating stormwater runoff using infiltration or detention/retention, using biofilter BMPs, providing a vegetated buffer zone between the new impervious surfaces and nearby waterways, reducing the paved area, using porous pavement, retaining natural surfaces, minimizing the use of gutters and curbs that concentrate and direct runoff, and using vegetated areas to promote infiltration.</u>

<u>In accordance with the Clean Water Program Hydromodification Management Plan, projects that create or replace more than one-acre of impervious surfaces would also be required to manage post-construction runoff such that it would not exceed pre-construction levels if the increase in peak runoff flows or runoff volume could cause increased erosion</u>

REVISED TABLE 3.5-2
SUMMARY OF POTENTIAL PROJECT-LEVEL HYDROLOGY AND WATER QUALITY IMPACTS

Facility	Impact 3.5-1 Degradation of Water Quality during Construction	Impact 3.5-2 Groundwater Dewatering	Impact 3.5-3 Diversion of Flood Flows	Impact 3.5-4 Discharge of Chloraminated Water during Construction	Impact 3.5-5 Operational Discharge of Chloraminated Water	Impact 3.5-6 Change in Impervious Surfaces
Lafayette WTP						
Alternative 1	SM	LTS	–	LTS	LTS	LTS
Alternative 2	SM	–	–	LTS	–	LTS
Orinda WTP						
Alternative 1	SM	LTS	–	LTS	–	LTS
Alternative 2	SM	LTS	–	LTS	LTS	LTS
Walnut Creek WTP – *Alternative 1 or 2*	SM	LTS	–	LTS	–	LTS
Sobrante WTP – *Alternative 1 or 2*	SM	LTS	–	LTS	–	LTS
Upper San Leandro WTP – *Alternative 1 or 2*	SM	–	–	LTS	–	LTS
Orinda-Lafayette Aqueduct *Alternative 2*	SM	LTS	SM	LTS	–	LTS
Ardith Reservoir and Donald Pumping Plant	SM	–	–	–	LTS	~~SM~~LTS
Fay Hill Pumping Plant and Pipeline Improvements	SM	–	–	–	–	LTS
Fay Hill Reservoir	SM	–	–	LTS	–	~~SM~~LTS
Glen Pipeline Improvements	SM	LTS	–	–	–	LTS
Happy Valley Pumping Plant and Pipeline	SM	LTS	SM	–	–	LTS
Highland Reservoir and Pipelines	SM	LTS	–	–	LTS	~~SM~~LTS
Lafayette Reclaimed Water Pipeline	SM	LTS	–	–	LTS	LTS
Leland Isolation Pipeline and Bypass Valves	SM	–	SM	–	–	LTS
Moraga Reservoir	SM	–	–	LTS	–	~~SM~~LTS
Moraga Road Pipeline	SM	LTS	SM	–	–	LTS
Sunnyside Pumping Plant	SM	–	–	–	–	LTS
Tice Pumping Plant and Pipeline	SM	LTS	SM	–	–	LTS
Withers Pumping Plant	SM	–	–	–	–	LTS

SM = Significant Impact, Can Be Mitigated
SU = Significant Impact, Unavoidable
LTS = Less-Than-Significant Impact
– = No Impact

of creek beds or banks, silt pollutant generation, or other adverse effects that would affect beneficial uses of the receiving water.

All of the water treatment plant projects and the proposed reservoir construction and replacement projects (Ardith Reservoir and Donald Pumping Plant, Fay Hill Reservoir, Highland Reservoir, and Moraga Reservoir) would involve the creation of impervious surfaces. However, all of these sites, with the exception of the Walnut Creek WTP, disturb one or more acres of land for construction and will require a General Construction Stormwater Permit as described in the setting and Impact 3.5-1. Upon completion of construction, a post-construction stormwater management plan describing stormwater controls would be prepared, including a maintenance schedule for installed post-construction BMPs, as required by the General Construction Stormwater Permit, and coverage under the General Construction Stormwater Permit would not be terminated until this plan is in place, permanent erosion control measures are in place, and the site is in compliance with all local stormwater management requirements. With compliance with these requirements, water quality impacts related to creation or replacement of impervious surfaces would be less than significant.

In the case of the Walnut Creek WTP, the project would increase the impervious surface by 11,350 square feet under both alternatives. However, approximately 8,000 square feet of the impervious area is the construction of the filter basins which will retain rainfall and will not contribute to runoff from the site and therefore will have a less than significant impact.

~~The proposed reservoir construction and replacement projects (Ardith Reservoir and Donald Pumping Plant, Fay Hill Reservoir, Highland Reservoir, and Moraga Reservoir) are the only WTTIP projects that would involve the creation or replacement of over 10,000 square feet of impervious surfaces and are not located in a public right-of-way or at a WTP. Therefore, the District would implement Measure 3.5-6 for these projects, requiring incorporation of site design and landscape features to maximize infiltration, provide retention or detention, slow runoff, and minimize impervious surfaces so that post-development pollutant loads from the site are reduced to the maximum extent possible. Types of site planning concepts that could be considered include providing a vegetated buffer zone between impervious surfaces and nearby waterways, reducing the paved area, using porous pavement, retaining natural surfaces, minimizing the use of gutters and curbs that concentrate and direct runoff, and using existing vegetation to create new vegetated areas to promote infiltration.~~

DEIR p. 3.5-43:

Orinda WTP – Alternative 1 or 2

The total increase in impervious surfaces at the Orinda WTP would be 41,500 square feet under Alternative 1 and 90,000 square feet under Alternative 2. Under both alternatives, water quality impacts related to an increase in impervious surfaces would be less than significant with compliance with the municipal stormwater permitting requirements as specified in the construction SWPPP and post construction stormwater control plan

prepared in accordance with the General Construction Stormwater Permit as described above. Under Alternative 2, the SWPPP and post construction stormwater control plan would also describe how peak flows would be managed to ensure that peak flows would not cause increased erosion of the San Pablo Creek beds or banks, silt pollutant generation, or other adverse effects that would affect beneficial uses of San Pablo Creek. ~~However, the WTP would not be subject to the C.3 requirements, because stormwater management is addressed under the Regionwide General NPDES Permit for Discharges from Surface Water Treatment Facilities for Potable Supply.~~

Sobrante WTP

The total increase in impervious surfaces at the Sobrante WTP under both alternatives would be 37,500 square feet. Water quality impacts related to an increase in impervious surfaces would be less than significant with compliance with the municipal stormwater permitting requirements as specified in the construction SWPPP and post construction stormwater control plan prepared in accordance with the General Construction Stormwater Permit as described above. ~~However, the WTP would not be subject to the C.3 requirements, because stormwater management is addressed under the Regionwide General NPDES Permit for Discharges from Surface Water Treatment Facilities for Potable Supply.~~

Lafayette WTP – Alternative 1 or 2

The total increase in impervious surfaces at the Lafayette WTP would be approximately 50,000 square feet under Alternative 1, and there would be no change in impervious surfaces under Alternative 2. Water quality impacts related to an increase in impervious surfaces would be less than significant with compliance with the municipal stormwater permitting requirements as specified in the construction SWPPP and post construction stormwater control plan prepared in accordance with the General Construction Stormwater Permit as described above. ~~However, the Lafayette WTP would not be subject to the C.3 requirements, because stormwater management is addressed under the Regionwide General NPDES Permit for Discharges from Surface Water Treatment Facilities for Potable Supply.~~

DEIR p. 3.5-44:

Highland Reservoir and Pipelines

The proposed Highland Pipelines would be constructed almost entirely in unpaved areas, and there would be no increase in impervious surfaces. The amount of impervious surfaces created for the proposed Highland Reservoir and access road would be approximately 33,500 square feet. Water quality impacts related to an increase in impervious surfaces would be less than significant with compliance with the municipal stormwater permitting requirements as specified in the construction SWPPP and post construction stormwater control plan prepared in accordance with the General Construction Stormwater Permit as described above.

DEIR p. 3.5-45:

Walnut Creek WTP

The total increase in impervious surfaces at the Walnut Creek WTP would be 11,350 square feet under both alternatives. However, approximately 8,000 square feet of the impervious area is the construction of the filter basins which will retain rainfall and will not contribute to runoff from the site and therefore this project will have a less than significant impact. ~~However, the WTP would not be subject to the C.3 requirements, because stormwater management is addressed under the Regionwide General NPDES Permit for Discharges from Surface Water Treatment Facilities for Potable Supply.~~

Ardith Reservoir and Donald Pumping Plant

The total increase in impervious surfaces for the proposed Ardith Reservoir and Donald Pumping Plant would be approximately 20,000 square feet. Water quality impacts related to an increase in impervious surfaces would be less than significant with compliance with the municipal stormwater permitting requirements as specified in the construction SWPPP and post construction stormwater control plan prepared in accordance with the General Construction Stormwater Permit as described above.

Fay Hill Reservoir

The existing impervious surfaces at the Fay Hill Reservoir are approximately 45,000 square feet; after construction, there would be approximately 24,000 square feet of impervious surfaces, a reduction of over 20,000 square feet. Water quality impacts related to an increase in impervious surfaces would be less than significant with compliance with the municipal stormwater permitting requirements as specified in the construction SWPPP and post construction stormwater control plan prepared in accordance with the General Construction Stormwater Permit as described above. ~~Therefore, this project would be subject to municipal stormwater permit requirements.~~

Moraga Reservoir

The existing impervious surfaces at the Moraga Reservoir are approximately 124,000 square feet; after construction, there would be approximately 45,000 square feet of impervious surfaces, a reduction of almost 80,000 square feet. Water quality impacts related to an increase in impervious surfaces would be less than significant with compliance with the municipal stormwater permitting requirements as specified in the construction SWPPP and post construction stormwater control plan prepared in accordance with the General Construction Stormwater Permit as described above. ~~Therefore, this project would be subject to municipal stormwater permit requirements.~~

DEIR p. 3.5-46:

Upper San Leandro WTP

The total increase in impervious surfaces at the Upper San Leandro WTP would be 7,000 square feet. ~~Regardless of the increase in impervious surfaces, the WTP would not be~~

~~subject to the C.3 requirements, because stormwater management is addressed under the Regionwide General NPDES Permit for Discharges from Surface Water Treatment Facilities for Potable Supply.~~

Measure 3.5-6 on DEIR p. 3.5-46 has been deleted.

DEIR p. 3.5-47:

Changes in impervious surfaces at the WTP as a result of program-level improvements under Alternative 1 would be less than significant with compliance with the municipal stormwater permitting requirements as specified in the construction SWPPP and post construction stormwater control plan prepared in accordance with the General Construction Stormwater Permit or applicable NPDES requirements at the time of construction. ~~not be subject to separate treatment measure/source control requirements because stormwater management would be addressed under the Regionwide General NPDES Permit for Discharges from Surface Water Treatment Facilities for Potable Supply and the site-specific BMP plan (or the NPDES permit in effect at the time of construction). The BMP plan would be revised to address any changes in stormwater runoff and potential stormwater pollutant sources, subject to approval by the RWQCB~~. Therefore, water quality impacts related to changes in impervious surfaces are expected to be less than significant.

DEIR p. 3.5-48:

Changes in impervious surfaces at the WTP as a result of program-level improvements under both alternatives would be less than significant with compliance with the municipal stormwater permitting requirements as specified in the construction SWPPP and post construction stormwater control plan prepared in accordance with the General Construction Stormwater Permit or applicable NPDES requirements at the time of construction. ~~not be subject to separate treatment measure/source control requirements because stormwater management would be addressed under the Regionwide General NPDES Permit for Discharges from Surface Water Treatment Facilities for Potable Supply and the site-specific BMP plan (or the NPDES permit in effect at the time of construction). The BMP plan would be revised to address any changes in stormwater runoff and potential stormwater pollutant sources, subject to approval by the RWQCB. Therefore, water quality impacts related to changes in impervious surfaces are expected to be less than significant.~~

DEIR p. 3.5-49:

The proposed replacement of the Leland Reservoir would likely involve the replacement of over 10,000 square feet of impervious surfaces. Furthermore, the threshold area for requiring compliance with municipal stormwater permits could decrease over time. Water quality impacts related to a change in impervious surfaces would be less than significant with compliance with the municipal stormwater permitting requirements as specified in the construction SWPPP and post construction stormwater control plan prepared in accordance with the General Construction Stormwater Permit or applicable NPDES requirements at the time of construction. ~~Therefore, this project would likely be required to comply with municipal stormwater permitting requirements at the time of construction and require~~

~~implementation of a measure similar to Measure 3.5-6, which would likely reduce water quality impacts related to stormwater runoff to a less-than-significant level.~~

DEIR p. 3.5-50:

Construction of the proposed New Leland Pressure Zone Reservoir would likely involve the creation of over 10,000 square feet of impervious surfaces. Furthermore, the threshold area for requiring compliance with municipal stormwater permits could decrease over time. Water quality impacts related to a change in impervious surfaces would be less than significant with compliance with the municipal stormwater permitting requirements as specified in the construction SWPPP and post construction stormwater control plan prepared in accordance with the General Construction Stormwater Permit or applicable NPDES requirements at the time of construction. ~~as regulatory requirements intensify. Therefore, this project would likely be required to comply with municipal stormwater permitting requirements at the time of construction and implement a measure similar to Measure 3.5-6, which would likely reduce water quality impacts related to stormwater runoff to a less-than-significant level.~~

3.6 Biological Resources

The text on DEIR p. 3.6-17 has been revised to acknowledge the fully protected status as follows:

Other Statutes, Codes, and Policies Affording Limited Species Protection

Migratory Bird Treaty Act / California Fish and Game Code. The federal Migratory Bird Treaty Act (16 USC, Section 703, Supp. I, 1989) prohibits killing, possessing, or trading in migratory birds, except in accordance with regulations prescribed by the Secretary of the Interior. This act encompasses whole birds, parts of birds, and bird nests and eggs. Birds of prey are protected in California under the Fish and Game Code (Section 3503.5, 1992). Section 3503.5 states that it is "unlawful to take, possess, or destroy any birds in the order Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto." ~~Construction d~~Disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment. Disturbance that causes nest abandonment and/or loss of reproductive effort is considered "taking" by the CDFG. Any loss of fertile eggs, nesting raptors, or any activities resulting in nest abandonment would constitute a significant impact. Non-raptor native birds receive similar protection under California Fish and Game Code Section 3503. Finally, certain bird species, including white-tailed kite, which are known to occur in the project area, are considered Fully Protected under Section 3511 of the California Fish and Game Code. Project impacts to these species would not be considered significant unless the species are known to, or have a high potential to, nest in the WTTIP project area or rely on it for primary foraging.

The first paragraph on DEIR p. 3.6-22 has been revised as follows:

> The City of Walnut Creek Municipal Code (Title 3, Chapter 8) provides protection for several classes of trees. The Code defines highly protected trees as ~~protected~~ those ~~trees~~ with a circumference of 28 inches or more at standard height ~~as~~that are one of the following type of tree: (1) oak, madrone, buckeye, California black walnut, or ~~locust tree~~gray pine; (2) a rare example of a species native to Walnut Creek; or (3) an exceptional specimen in regard to size, age, health, location, or visual prominence.
>
> In addition, the City of Walnut Creek tree ordinance applies to trees of any species with a single stem of greater than 28 inches in circumference or multi-stemmed trees having an aggregate circumference greater than 40 inches. The ordinance also applies to multistemmed trees that include single stem greater than 28 inches. Finally, the ordinance applies to a tree of any size that is part of a grove, which is defined as three or more trees of any size that are part of an integral cover with stems with an aggregate circumference of forty inches or more.

Measure 3.6-1b on DEIR p. 3.6-33 has been revised as follows (bullets have been added to make the measure easier to read):

> **Measure 3.6-1b:** For each project site (except for the Walnut Creek WTP and the Lafayette WTP under Alternative 2), all pruning of preserved trees will be performed by a certified arborist. No more than 25 percent of a tree's canopy will be removed ~~during the pruning of retained trees~~. Tree replacement will adhere to the following guidelines:
>
> - If any protected tree native to the local area, such as valley oak and coast live oak, is removed, the District will replace ~~the tree~~it on a 3:1 basis with native trees of the same species as those removed.
> - All ~~removed~~ non-native protected trees which are removed will be replaced at a 1:1 ratio with a non-invasive tree species.
> - Non-native trees removed from a natural environment will be replaced with a native species that occurs ~~locally~~ in the area.
> - Replacement trees will be planted on site where feasible. Where this is not feasible, trees will be planted at ecologically appropriate sites on EBMUD watershed lands.
> - In natural areas, when the trees removed are locally native and when the replacement planting will occur on site, a species replacement ratio reflecting the tree species composition of the site will be used.
> - In lieu of tree replacement the District would consider the establishment of permanent conservation easements on EDMUD watershed lands that support high quality oak woodlands. Oak woodland acreage lost through individual tree removal will be quantified prior to initiation of project construction activities and concurrent with the mapping activities to occur under Measure 3.6-1a.

Measure 3.6.1c on DEIR p. 3.6-33 has been revised as follow:

> **Measure 3.6-1c:** For each project site (except for the Walnut Creek WTP and the Lafayette WTP under Alternative 2), the contractor will be required to warrant tree health for one year after project completion and the District will guarantee the health of all trees to be preserved within and adjacent to the construction corridor of project-related pipeline and facility sites for two additional years, for a total of three years. The guarantee period for a tree will be five years if the District constructs or installs improvements or performs approved mechanical excavation within the dripline of any tree. The District will replace any tree that is to be retained but that dies as a result of project construction activities during the guarantee period with a tree of the same species. The replaced trees would be subject to the same monitoring protocols as those protected trees removed due to construction.

Measure 3.6-1d on DEIR p. 3.6-34 has been revised follows:

> **Measure 3.6-1d:** For each project site (except for the Walnut Creek WTP and the Lafayette WTP under Alternative 2), the District will develop and implement a five-year tree monitoring program. ~~Appropriate p~~Performance standards may include, but are not limited to: a 75 percent survival rate of tree plantings and the ability to be self-sustaining at the end of five years.

Measure 3.6-1e on DEIR p. 3.6-34 has been revised as follows:

> **Measure 3.6-1e:** The District will implement the Revised Highland Reservoir Alternative to reduce impacts to large-diameter, multi-stemmed oak trees. The alignments for the Highland Reservoir pipelines and Moraga Road Pipeline will be refined in the field, to the extent feasible and within hydraulic constraints, to avoid removal of protected trees. Refined alignments will be flagged in the field, then surveyed and mapped in accordance with Measure 3.6-1a. District Biologists will review pipeline alignments, supervise delineation of construction work areas, and monitor initial vegetation removal for construction activities within the Lafayette Reservoir Recreation Area. Where removal of protected trees cannot be avoided, trees will be replaced in accordance with Measure 3.6-1b.

Measure 3.6-2d on DEIR p. 3.6-40 has been revised as follows:

> **Measure 3.6-2d:** Where applicable, for overflow discharges into a creek or reservoir, the District will install energy ~~dissipaters~~ diffusers, such as riprap, ~~in the creek~~ to minimize erosion and water quality effects. Such dissipaters shall be placed, whenever possible, to avoid fill of jurisdictional waters and impacts to aquatic or riparian habitat. When such secondary impacts cannot be avoided, compensation for loss of habitat shall be provided as described under Measure 3.6-2c.

As a staff-initiated change, text on DEIR p. 3.6-55 is revised as follows:

> Prior to construction activities (i.e., ground clearing and grading, including removal of trees or shrubs) within 200 feet of trees that potentially support special-status bats, EBMUD will retain a qualified bat biologist to survey for special-status bats. If no evidence of bats (i.e., direct observation, guano, staining, strong odors) is present, no further mitigation is required.

3.8 Traffic and Circulation

Measure 3.8-1 on DEIR p. 3.8-13 has been revised as follows:

> **Measure 3.8-1:** The ~~following requirements will be incorporated~~ District will incorporate into contract specifications for the project the following requirements:
>
> - The contractor(s) will obtain any necessary road encroachment permits prior to construction and will comply with conditions of approval attached to project implementation. As part of the road encroachment permit process, the contractor(s) will ~~submit~~ prepare a traffic safety / traffic management plan (for work in the public right-of-way), in accordance with professional traffic engineering standards, for review and approval by EBMUD. The plan will be submitted to the agencies having jurisdiction over the affected roads. Elements of the plan will likely include, but are not necessarily limited to, the following:

The following measures have been added to the list of requirements in Measure 3.8-1 on DEIR p. 3.8-13:

- The District will hold coordination meetings with the City of Orinda, the Orinda Unified School District, and the Moraga-Orinda Fire District to minimize the impact of road closures on Miner Road.

- As part of the coordination with school administrators, the District will coordinate with providers of school bus service regarding road closures, delays and detours during times that school buses run.

The following measure has been added to the list of mitigation requirements in Measure 3.8-1 on DEIR p. 3.8-13:

- The contractor(s) will post all construction sites with signs that state the permitted hours of construction. Those signs will identify the construction project as initiated by EBMUD, and will provide contact information for inquiries or comments.

The following measure has been added to the list of elements in Measure 3.8-1 on DEIR p. 3.8-14:

- Provide advance notification to property owners along Glen Road, Nordstrom Lane, Hilltop Drive and Hastings Court regarding road closures associated with the Glen Pipeline Improvements project. Signs will be posted at the location of the road closure at least two weeks in advance, and notices will be mailed to property owners at least three weeks in advance.

The following text has been added to the bullet list under Project Impact – Facility-Specific on DEIR p. 3.8-13:

- *Happy Valley Pumping Plant and Pipeline*. An increase in traffic volume on Lombardy Lane and Miner Road would be more noticeable than on higher-volume Camino Pablo.

Measure 3.8-1, last bulleted item on DEIR p. 3.8-14 has been revised as follows:

– Coordinate construction activities, to extent possible, to minimize traffic disturbances adjacent to schools (e.g., do work during summer months when there is less activity at schools). For construction activities that occur during the school year, then at the start and end of the school day at schools adjacent to a pipeline project (e.g., Bentley School on El Nido Ranch Road, and Campolindo High School on Moraga Road), the contractor(s) will provide flaggers in the school areas to ensure traffic and pedestrian safety. During periods when school children at the Wagner Ranch Elementary School are walking to and from school in the morning and in the afternoon on the asphalt trail along the north side of Camino Pablo, when construction truck traffic is present near the trail, the contractor(s) will provide flaggers and crossing guards (the latter as needed to supplement the school-provided crossing guards) to ensure pedestrian and traffic safety. School arrival and departure schedules will be monitored for changes such as vacation periods, and the school traffic and pedestrian safety plan will be modified as needed.

Measure 3.8-1, first sentence of the fourth bullet point on DEIR p. 3.8-14 has been revised as follows:

– Limit lane closures during peak hours to the extent possible (and unless otherwise approved by the local agency).

Measure 3.8-1, first sentence of the fifth bullet point on DEIR p. 3.8-14 has been revised as follows:

– As approved by the local agency, limit, where possible, the pipeline construction work zone to a width that, at a minimum, maintains alternate one-way traffic flow past the construction zone.

Measure 3.8-1, sixth, seventh, and eighth bullet points on DEIR p. 3.8-14 has been revised as follows:

– As approved by the local agency, include signage to direct pedestrians and bicyclists around ~~project~~ construction work zones that displace sidewalks ~~and/~~or bike lanes.

– As approved by the local agency, store all equipment and materials in designated contractor staging areas on or adjacent to the worksite in such a manner to minimize obstruction to traffic.

– As approved by the local agency, identify locations for parking by construction workers ~~(~~within the construction zone or, if needed, at a nearby location with transport ~~provided between the parking location and~~ to and from the worksite provided~~)~~.

The following text has been added to the list of project facilities where full onsite accommodation of parking demand would not occur (DEIR p. 3.8-19):

- *Happy Valley Pumping Plant*. The pumping plant site would serve as the construction staging area. A shuttle would be provided to transport workers to and from an offsite parking location to the extent area is not available on site.

The following text has been added as the fourth sentence in the second paragraph under Impact 3.8-5, DEIR p. 3.8-20:

> In addition, although not located on a road where pipeline installation would occur, access to the Sleepy Hollow Elementary School would be affected by installation of the pipeline on Lombardy Lane.

3.9 Air Quality

The last sentence of the first full paragraph on DEIR p. 3.9-13 has been revised as follows:

> Therefore, implementation of the BAAQMD's standard dust control procedures (Measure 3.9-1a) will be implemented for all WTTIP projects, while enhanced dust control procedures (Measure 3.9-1b) will be implemented on all but five WTTIP projects ~~scheduled between 2011 and 2018, where applicable~~."

3.10 Noise and Vibration

The following statement has been added on DEIR p. 3.10-25, paragraph 2, after the fifth sentence:

> However, pipeline construction would not affect any one receptor for more than about two weeks (plus a couple of additional days for paving the trench), reducing the potential for significant noise impacts.

Measure 3.10-1a, bullet 8, on DEIR p. 3.10-31 has been revised as follow:

- An EBMUD contact person will be designated ~~for~~to respond to construction-related issues, including noise. The name and phone number of the liaison will be conspicuously posted at construction areas, on all advanced notifications, and on the EBMUD project website. This person will take steps to resolve complaints, including periodic noise monitoring and the option of hotel accommodations, if necessary.

Measure 3.10-1b on DEIR p. 3.10-31 has been revised as follows:

> **Measure 3.10-1b:** Construction at the WTTIP project sites producing substantial noise will be restricted to the hours of operation specified by each jurisdiction's noise ordinance (as listed in Table 3.10-1, including restrictions provided in footnotes and any other ordinance exceptions and provisions in effect at the time of EIR publication), except during critical water service outages or other emergencies and special situations. Any equipment operating beyond these hours will be subject to the day and night noise limits of each jurisdiction (as listed in Table 3.10-1) for various activities in single-family residential zones. EBMUD will coordinate with local agencies regarding noise controls for any construction work that needs to occur after 6:00 p.m. and before 7:00 a.m. To ensure that these standards could be met at the closest sensitive receptors, EBMUD will conduct a noise monitoring program prior to implementation of any project where construction would extend beyond ordinance time limits to accurately determine baseline ambient noise levels at the closest residential receptors and to measure noise levels at these receptors during a test run of equipment

proposed to be operated on the site during the more noise-sensitive nighttime hours. Project noise limits will be adjusted appropriately depending on the existing ambient noise levels[1] to ensure noise disturbance is maintained at a less-than-significant level at the closest residential receptors. Measures that could be implemented to reduce noise levels (as demonstrated in Table 3.10-6) to meet local nighttime standards include engine controls listed in Measure 3.10-1a, tunnel-related measures listed in Measure 3.10-1c, and temporary sound barriers listed in Measure 3.10-1e.

The second bullet under Measure 3.10-3b on DEIR p. 3.10-40 has been revised as follow:

- To the extent possible, residents in the potentially affected area will be notified in advance of controlled detonation and piledriving activities, or if that is not possible, as soon as possible following the controlled detonation activity.

3.12 Public Services and Utilities

Table 3.12-3 on DEIR p. 3.12-5 has been revised as shown on the following pages (pp. 3.2-22 and 3.2-23).

As a staff-initiated change, Table 3.12-6 on DEIR p. 3.12-13, 1st row of 2nd column:

Change from "Measures 3.12-1a to 3.12-1~~g~~" to "Measures 3.12-1a to 3.12-1h"

Table 3.12-4 on DEIR p. 3.12-10 has been revised as follows:

REVISED TABLE 3.12-4 (Continued)
EXISTING UNDERGROUND UTILITIES LOCATED WITHIN PROJECT-LEVEL PIPELINE ALIGNMENTS[a]

Facility	Street	Roadway Segment	Utility	Diameter (inches)
Tice Pumping Plant and Pipeline	Boulevard Way	Warren to Olympic Boulevard	Water Sewer Natural Gas Storm Drain	6, 12 12 2 Unknown
	Olympic Boulevard	Boulevard Way to Tice Pumping Plant	Water Sewer Natural Gas[b] Storm Drain Communication	8, 12, 20 24, 45 4, 12, 16 (over 60 psi) Unknown Unknown

[a] Due to the nature of underground construction, the exact location of under ground utilities cannot be guaranteed based on construction documents; the precise location can only be determined by careful probing or hand digging, in compliance with Article 6 of the Cal/OSHA Construction Safety Orders.

[b] The utility is considered to be high priority based on *Caltrans Project Development Procedures Manual* definition of high-risk facilities that include: (1) petroleum products; (2) oxygen; (3) chlorine; (4) toxic or flammable gases; (5) natural gas in pipelines greater than 6 inches nominal pipe diameter, or pipelines with normal operating pressures greater than 60 pounds per square inch gauge; (6) underground electric supply lines, conductors, or cables that have a potential to ground of more than 300 volts, either directly buried or in a duct or conduit, that do not have concentric grounded or other effectively grounded metal shields or sheaths (Caltrans, 1997).

SOURCE: McGowan, 2006b.

[1] If baseline noise levels already exceed standards at the closest residential receptors, the standards will be increased appropriately so that construction noise levels do not result in a noticeable increase in ambient noise levels at these receptors.

REVISED TABLE 3.12-3
SCHOOLS, HOSPITALS, AND FIRE STATIONS IN PROJECT VICINITY

	Street Address
City of Lafayette	
Schools in the Vicinity of WTTIP Project Sites	
Burton Valley Elementary School	561 Marriewood Drive
Lafayette Elementary School	950 Moraga Road
M.H. Stanley Intermediate School	3455 School Street
White Pony and Meher Elementary School	999 Leland Drive
Happy Valley Elementary School	3855 Happy Valley Road
Springhill Elementary School	3301 Springhill Road
Acalanes High School	1200 Pleasant Hill Road
Bentley School	1000 Upper Happy Valley Road
Preschools in the Vicinity of WTTIP Project Sites	
The Child Day Schools	1049 Stuart Street
French for Fun	3470 Mt. Diablo Boulevard, A115
Happy Days Learning Center	3205 Stanley Boulevard
Joyful Beginnings	955 Moraga Road
Merriewood Children's Center	561 Merriewood Drive
Michael Lane Preschool	682 Michael Lane
Seedlings Preschool	49 Knox Drive
Hospitals in the Vicinity of WTTIP Project Sites	
John Muir Medical Center Sierra Surgi-Center	970 Dewing Avenue
Fire Stations in the Vicinity of WTTIP Project Sites	
CCCFPD Station 15	3338 Mt. Diablo Boulevard
CCCFPD Station 16	4007 Los Arabis Drive
CCCFPD Station 17	620 St. Mary's Road
City of Orinda	
Schools in the Vicinity of WTTIP Project Sites	
Wagner Ranch Elementary	350 Camino Pablo
~~North Bay~~ Orinda Academy ~~School~~	19 Altarinda Road
~~Springs Academy~~	~~89 Moraga Way~~
Glorietta Elementary School	15 Martha Road
Orinda Intermediate School	80 Ivy Drive
~~E~~Del Ray Elementary School	25 El Camino Moraga
Miramonte High School	750 Moraga Way
Sleepy Hollow Elementary School	20 Washington Lane
Contra Costa Alternative School	10 Irwin Way
Preschools in the Vicinity of WTTIP Project Sites	
Fountainhead Montessori School	30 Santa Maria Way
Fire Stations in the Vicinity of WTTIP Project Sites	
Moraga Orinda Fire Department Station 43	20 Via Las Cruces
Moraga Orinda Fire Department Station 44	295 Orchard Road
Moraga Orinda Fire Department Station 45	33 Orinda Way
Town of Moraga	
Schools in the Vicinity of WTTIP Project Sites	
Camino Pablo Elementary School	1111 Camino Pablo
Joaquine Moraga Intermediate School	1010 Camino Pablo
Campolindo High School	300 Moraga Road
Donald L. Rheem Elementary School	90 Laird Drive
Los Perales Elementary School	22 Wakefield Drive
Frederick Taylor University	346 Rheem Boulevard
Preschools in the Vicinity of WTTIP Project Sites	
Creative Playhouse, Inc.	1350 Moraga Way
Fountainhead Montessori School	1450 Moraga Road
Moraga Bright Beginnings Christian Preschool	1689 School Street
Mulberry Tree Preschool	1455 St. Mary's Road
Saklan Valley School	1678 School Street
The Child Day Schools	372 Park Street

REVISED TABLE 3.12-3 (Continued)
SCHOOLS, HOSPITALS, AND FIRE STATIONS IN PROJECT VICINITY

	Street Address
Fire Stations in the Vicinity of WTTIP Project Sites	
Moraga Orinda Fire Department Station 41	1280 Moraga Way
Moraga Orinda Fire Department Station 42	555 Moraga Road
City of Walnut Creek	
Schools in the Vicinity of WTTIP Project Sites	
Dorris Eaton School	1847 Newell Avenue
Las Lomas High School	1460 South Main Street
St. Mary's School	1158 Bont Lane
Muir Wood Elementary School	2050 Vanerslice Avenue
Walnut Heights Elementary School	4064 Walnut Boulevard
Buena Vista Elementary School	2355 San Juan Avenue
Walnut Creek Christian Academy	2336 Buena Vista Avenue
Parkmead Elementary School	960 Ygnacio Valley Road
Walnut Creek Intermediate School	2425 Walnut Boulevard
Palmer School for Boys and Girls	2740 Jones Road
Contra Costa Christian High School	2721 Larkey Lane
Eagle Peak Montessori	800 Hutchinson Road
Del Oro High (Continuation)	1969 Tice Valley Boulevard
Foothill Middle School	2775 Cedro Lane
Bancroft Elementary School	2200 Parish Drive
Northgate High School	425 Castle Rock Road
Valle Verde Elementary School	3275 Peachwillow Lane
Preschools in the Vicinity of WTTIP Project Sites	
Bianchi School	2521 Walnut Boulevard
Bianchi School	2850 Cherry Lane
Brenda's Infant Toddler Care	2451 Mallard Drive
Children's World Learning Center	2875 Mitchell Drive
Contra Costa Christian Preschool	2721 Larkey Lane
Contra Costa Jewish Community Center	2071 Tice Valley Boulevard
Gan B'nai Shalom	74 Eckley Lane
Garden Gate Montessori School	63 Sandy Lane
Kid Time, Inc.	1547 Geary Road
Love and Care Learning Center	1985 Geary Road
North Creek Preschool	2303 Ygnacio Valley Road
Pied Piper Preschool	2263 Whyte Park Avenue
St. Mary Pre-Kindergarten Program	1158 Bont Lane
Preschool at Seven Hills School	975 North San Carlos Drive
Trinity Lutheran School	2317 Buena Vista Avenue
Walnut Creek Presbyterian Church Preschool	1801 Lacassie Avenue
Hospitals in the Vicinity of WTTIP Project Sites	
Kaiser Permanente Medical Center	1425 S. Main St.
Mt. Diablo Medical Center	1601 Ygnacio Valley Road
National Specialty Hospital	177 La Casa Via
Fire Stations in the Vicinity of WTTIP Project Sites	
CCCFPD Station 1	1330 Civic Drive
CCCFPD Station 3	1520 Rossmoor Parkway
CCCFPD Station 4	700 Hawthorne Drive
CCCFPD Station 7	1050 Walnut Avenue
City of Oakland	
Schools in the Vicinity of WTTIP Project Sites	
Burckhalter Elementary School	3994 Burckhalter Avenue
Parker Elementary School	7929 Ney Avenue
Reems (Ernestine C.) Academy of Technology and Art	8425 MacArthur Boulevard
Howard Elementary School	8755 Fontaine Street
City of El Sobrante	
Fire Stations in the Vicinity of WTTIP Project Sites	
CCCFPD Station 69	4640 Appian Way

SOURCE: California Department of Education, 2006; East Bay Preschool Directory, 2006; Contra Costa County, 2005.

As a staff-initiated change, text under Impact 3.12-4 on DEIR p. 3.12-19 is revised as follows:

> To reduce this impact to a less-than-significant level, the District will implement Measures 3.12~~12.3-~~4a and 3.12~~12.3-~~4b.

Measures 3.12-4a and 3.12-4b on DEIR p. 3.12-20 have been revised as follows:

> **Measure 3.12-4a:** The District will ~~encourage~~ require project facility design and construction methods that produce less waste, or that produce waste that could more readily be recycled or reused.
>
> **Measure 3.12-4b:** The District will include in its construction specifications a requirement for the contractor to describe plans for recovering, reusing, and recycling 50 percent of projected solid waste~~s produced~~ through construction, demolition, and excavation activities.

Chapter 5. Cumulative Impacts

Section 5.2.11, fifth paragraph on DEIR p. 5-12 has been revised as follows:

> The most significant source of solid waste ~~is~~ potentially requiring offsite disposal would be excavated material, estimated at approximately 230,000 –376,000 cubic yards for all WTTIP projects under Alternatives 1 and 2, respectively. The high end of the range represents less than 0.2% of the remaining capacity of two landfills in the WTTIP vicinity, Keller Canyon Landfill with 68,279,670 cubic yard and Altamont Landfill with 124,400,000 cubic yards. There are numerous other active landfills in Contra Costa and Alameda Counties that could also be used such that the impact on the capacity of these two landfills would be even less. As described under ~~Impacts~~ Measures 3.12-4a and 3.12-~~5~~4b ~~and presented in Table 3.12-5, however, most of this material would be reused onsite and, together with other measures designed to~~ contractors would be encouraged to ~~waste~~ recycle~~ing~~ and reuse excavated spoils and other construction materials to the extent feasible which could reduce the estimated totals. Therefore, this impact is not expected to result in a significant cumulative effect on landfill capacity in the area.

Table 5-1 on DEIR pp. 5-13 to 5-32 has been revised as shown on pp. 3.2-26 to 3.2-45 of this section.

The text in Table 5-1, DEIR p. 5-21 regarding CCCSD's Collection System Renovation Program has been revised as follows:

> Replace or renovate small-diameter sewers ~~in south~~ throughout Orinda (~~south~~ both sides of Highway 24 – many locations, not shown on figure).

The text in Table 5-1, DEIR p. 5-26 regarding CCCSD's Orinda Crossroads Pumping Station Force Main has been revised as follows:

> Evaluation and rehabilitation of existing force mains in various parts of downtown ~~Walnut Creek~~ Orinda towards Lafayette (Location not shown on map).

Table 5-2 on DEIR pp. 5-33 to 5-34 has been revised as shown on pp. 3.2-46 to 3.2-47 of this section.

The following measure has been added to the bottom of DEIR p. 5-45:

> **Measure C-7:** The District will provide regular, ongoing notification and communication (approximately every six to twelve months or more often if needed) with local jurisdictions with regard to the status, schedule and location of WTTIP projects and associated haul routes and any other District projects within that jurisdiction. This will include regular coordination with Orinda, Lafayette, Walnut Creek and Moraga, where there is a high potential for conflict with other proposed and planned projects, as well as regular coordination with Contra Costa County and Central Contra Costa Sanitary District. The District will make reasonable efforts to coordinate the scheduling of its project activities with other jurisdictions' activities in order to minimize the magnitude and duration of disruption to local communities.

Chapter 6. Alternatives

The paragraph after the second bullet on DEIR p. 6-56 has been revised as follows:

> Although providing clearwell capacity at the Orinda WTP would allow the District to further reduce the size of the North, South and Central Reservoirs, ~~doing so~~ reducing the size of these reservoirs would not meet the fundamental objectives (managing water quality) of building the program-level clearwell at the Orinda WTP and therefore cannot be considered an alternative.

The third bullet on DEIR p. 6-70 has been revised as follows:

- **Moraga Road Pipeline.** Implementing the proposed project with the realignments through the Lafayette Reservoir Recreation Area identified under the Moraga Road Pipeline Alternative is considered environmentally preferable to either the project as proposed or the tunneling option~~. The tunnel option is considered environmentally superior to trenching the pipeline in Moraga Road between Nemea Court and Sky Hy Drive~~ because it would reduce the number of protected trees requiring removal by up to 25 and total number of trees by up to 40. Removing fewer trees, particularly those of large-diameter, would in turn reduce impacts to the habitat of upland special status species.

THE FOLLOWING PROJECT NUMBERS HAVE BEEN ADDED TO THIS TABLE: A-3, B-18, D-5, F-14, G-16, L-26, AND L-27

REVISED TABLE 5-1
OTHER PROJECTS IN THE WTTIP AREA WITH POTENTIAL FOR CUMULATIVE IMPACTS

No.[a]	Planning Jurisdiction	Project Name	Project Description	Closest WTTIP Project Element[b]	Project Status / Construction Schedule	Source
LAFAYETTE						
Overlapping Haul Routes with Lafayette WTP, Orinda-Lafayette Aqueduct, Highland Reservoir and Pipeline, Moraga Road Pipeline						
A-1	EBMUD	Folsom South Canal Connection Projects	Install stop logs and isolation valve at Lafayette WTP.	All	Approved / construction date uncertain	EBMUD, 2005g
A-2	Contra Costa Transportation Authority	Lafayette Carpool Lots	Construct a carpool lot on Mt. Diablo Boulevard at Risa Road.	All	Approved / 2007	Contra Costa Transportation Authority, 2006b; Contra Costa Transportation Authority, 2006a
A-3	Central Contra Costa Sanitary District	Lamorinda-Mt. Diablo Blvd. Parallel Sewer	Sewer project in Mt. Diablo Blvd., from El Nido Ranch Road to Dolores Drive	All	2019-2020	Central Contra Costa Sanitary District, 2006
South Projects with Overlapping Haul Routes with Fay Hill Reservoir Replacement, Fay Hill Pumping Plant and Pipeline, Glen Pipeline Improvements, Moraga Road Pipeline, Moraga Reservoir, Sunnyside Pumping Plant, St. Mary's Road/Rohrer Drive Pipeline						
B-1	EBMUD	Brook Street Pipeline	Replace 2,700 feet of 6- and 8-inch transmission pipeline with 16-inch pipeline. Located on Brook Street from Mountain View Drive to Moraga Road.	Moraga Road Pipeline, Glen Pipeline Improvements	Planned / Apr. 2012 through Jan. 2013	EBMUD, 2005c
B-2	EBMUD	Sunset Reservoir Rehabilitation	Rehabilitate 0.07-million-gallon tank located east of Lafayette Reservoir.	Moraga Road Pipeline	Planned / Apr. 2010 through Sept. 2010	EBMUD, 2005b
B-3	EBMUD	Folsom South Canal Connection Projects	Install a new pump control panel, dechlorination improvements, and electrical improvements at the Moraga Pumping Plant.	Moraga Road Pipeline, Glen Pipeline Improvements	Approved / construction date uncertain	EBMUD, 2005g
B-4	City of Lafayette	Veteran's Memorial Building	10,500-square-foot community facility located at 3491 Mt. Diablo Boulevard.	Moraga Road Pipeline, Glen Pipeline Improvements	Construction completed 2005	City of Lafayette, 2005
B-5	City of Lafayette	Soldier Field Subdivision	87.9-acre subdivision for eight residential lots and approximately 60 acres of open space at the boundary between Lafayette and Walnut Creek.	St. Mary's Road/Rohrer Drive Pipeline	Proposed	City of Lafayette, 2005
B-6	City of Lafayette	Lafayette Library and Learning Center	30,321-square-foot library and 33,019-square-foot garage at Mt. Diablo Boulevard and First Street.	Glen Pipeline Improvements	Approved / 2006	City of Lafayette, 2005

REVISED TABLE 5-1 (continued)
OTHER PROJECTS IN THE WTTIP AREA WITH POTENTIAL FOR CUMULATIVE IMPACTS

No.[a]	Planning Jurisdiction	Project Name	Project Description	Closest WTTIP Project Element[b]	Project Status / Construction Schedule	Source
B-7	City of Lafayette	Lafayette Mercantile	22,000-square-foot retail and 33,000-square-foot office building at Mt. Diablo Boulevard at Dewing Avenue.	Glen Pipeline Improvements	Approved / 2005–2006	City of Lafayette, 2005
B-8	City of Lafayette	Town Center Phase III	75-unit apartment building at Mt. Diablo Boulevard at Dewing Avenue.	Glen Pipeline Improvements	Planned (in approval process) / 2006	City of Lafayette, 2005
B-9	PG&E	Rule 20 Electric Undergrounding Program	Undergrounding of utilities along 1,000 feet of Lafayette Circle.	Glen Pipeline Improvements	Approved / 2008	Pflaum, 2006
B-10	Contra Costa Transportation Authority	Moraga Road Corridor Improvements – Phases I and II	Eliminated a signal and crosswalks at the intersection of Brook Street and Moraga Road (involved closure of Brook Street). Installed traffic signal at intersection of Moraga Road and Moraga Boulevard.	Glen Pipeline Improvements	Completed in 2005	Contra Costa Transportation Authority, 2006b; Contra Costa Transportation Authority, 2006a
B-11	Contra Costa Transportation Authority	Moraga Road Corridor Improvements – Phases III and IV	Acquire right-of-way and realign Brook Street with School Street. Construct a pedestrian walkway along Moraga Road from Old Jones Hill Road to Hillsdale.	Glen Pipeline Improvements	Completed in 2005	Contra Costa Transportation Authority, 2006b; Contra Costa Transportation Authority, 2006a
B-12	Contra Costa Transportation Authority / City of Lafayette	Moraga Road Structural & Safety Improvements	Structural and safety improvements on Moraga Road between St. Mary's Road and Moraga city limit. Improvements include access improvements at intersections, shoulder work, potential slope stabilization, pavement rehabilitation, removal of safety hazards, and related improvements. Improvements from the Lafayette/Moraga town limit to Rim Rock Road are completed.	Moraga Road Pipeline	Completed in 2005	Contra Costa Transportation Authority, 2006b; Contra Costa Transportation Authority, 2006a; City of Lafayette, 2006; Coe, 2006
B-13	City of Lafayette	Lafayette Valley Estates Storm Drain Improvement Project	Repair and replacement of approximately 1,600 feet of broken concrete ditches and 600 feet of corroded metal pipes of the original storm drain system at several locations within the subdivision as the first phase to upgrading and renewing the area drainage system.	St. Mary's Road/Rohrer Drive Pipeline	Approved / 2006	City of Lafayette, 2006; Coe, 2006
B-14	City of Lafayette	St. Mary's Road Storm Drain Improvements	Construct 1,000 feet of underground storm drainage pipe to replace existing open ditch where standing water occurs between Huertas Road and Hope Lane.	St. Mary's Road/Rohrer Drive Pipeline	Approved / 2006	City of Lafayette, 2006; Coe, 2006

REVISED TABLE 5-1 (continued)
OTHER PROJECTS IN THE WTTIP AREA WITH POTENTIAL FOR CUMULATIVE IMPACTS

No.[a]	Planning Jurisdiction	Project Name	Project Description	Closest WTTIP Project Element[b]	Project Status / Construction Schedule	Source
B-15	Contra Costa Transportation Authority	Mt. Diablo Boulevard Corridor Improvements	Added a third east-bound lane to Mt. Diablo Boulevard between Oak Hill Road and Moraga Road. At the intersection with Moraga Road, a third south-bound lane was added. Other improvements were made to Plaza Way and Golden Gate Way. The project included some landscape work that mitigated the loss of landscaped medians and park area. Plaza park was rebuilt using local funds.	Glen Pipeline Improvements	Construction completed in 2001	Contra Costa Transportation Authority, 2006b; Contra Costa Transportation Authority, 2006a
B-16	EBMUD	Folsom South Canal Connection Projects	Install isolation butterfly valve on the branch line from Lafayette Aqueduct No. 1 to Moraga Pumping Plant.	Moraga Road Pipeline	Approved / 2006	EBMUD, 2005g
B-17	EBMUD	Happy Valley Road Pipeline	Replace 3,150 feet of pipeline on Dolores Street, under Highway 24, and on Happy Valley Road.	Glen Pipeline Improvements	Planned / completion expected by April 2007	Kirkpatrick, 2006
B-18	Central Contra Costa Sanitary District	Lamorinda-Olympic Blvd.1 Parallel Sewer	Sewer project in Golden Gate Way, Second Street, Moraga Blvd., Olympic Blvd.	Glen Pipeline Improvements	2019-2020	Central Contra Costa Sanitary District, 2006
North Projects with Overlapping Haul Routes with Fay Hill Reservoir Replacement, Fay Hill Pumping Plant and Pipeline, Glen Pipeline Improvements, Moraga Road Pipeline, Moraga Reservoir, Sunnyside Pumping Plant, St. Mary's Road/Rohrer Drive Pipeline						
C-1	EBMUD	Valory Reservoir Replacement	Replace 0.27-million-gallon reservoir with a 0.5-million-gallon reservoir off of Panorama Drive	Glen Pipeline Improvements	In construction / completion expected by Jun. 2006	EBMUD, 2005e
C-2	Caltrans	Deer Hill Road/Oak Road Interchange	Improve interchange and signals at westbound off-ramp at Highway 24 Deer Hill Road/Oak Road interchange.	Glen Pipeline Improvements	Status being determined	Caltrans, 2006
C-3	City of Lafayette	Happy Valley Road Storm Drain Improvements	Replace 100 feet of roadside ditch on Happy Valley Road, just east of Crestmont Drive, with an underground pipe.	Glen Pipeline Improvements	Approved / 2006	City of Lafayette, 2006; Coe, 2006
Overlapping Haul Routes with Tice Pumping Plant and Leland Reservoir Replacement						
D-1	EBMUD	Old Tunnel Road Pipeline	Replace 1,300 feet of 8-inch transmission pipeline with a 12-inch pipeline. Located on Old Tunnel Road from Buchanan Drive to Linda Vista Lane.	Leland Reservoir Replacement	Planned / Apr. 2013 through Jan. 2014	EBMUD, 2005c
D-2	Central Contra Costa Sanitary District	Trunk Sewer Project – Lower Pleasant Hill Road Trunk	Replace approximately 3,300 feet of trunk sewer with a 21-inch line in Pleasant Hill Road, south of Highway 24.	Leland Reservoir Replacement	Approved / 2012	Central Contra Costa Sanitary District, 2005
D-3	City of Lafayette	Hidden Oaks	21-lot single-family residential subdivision near Kinney Drive.	Leland Reservoir Replacement	Approved / under construction	City of Lafayette, 2002

REVISED TABLE 5-1 (continued)
OTHER PROJECTS IN THE WTTIP AREA WITH POTENTIAL FOR CUMULATIVE IMPACTS

No.[a]	Planning Jurisdiction	Project Name	Project Description	Closest WTTIP Project Element[b]	Project Status / Construction Schedule	Source
D-4	Caltrans / City of Lafayette	Pleasant Hill Road Bike/Pedestrian Path Improvements	Construct multipurpose pathways, tree-lined strips, bike lanes, and narrow travel lanes in Pleasant Hill Road between Mt. Diablo Boulevard and Condit Lane.	Leland Reservoir Replacement	Under construction / completion expected by 2006	Caltrans, 2006; Contra Costa Transportation Authority, 2006a; City of Lafayette, 2006
D-5	Central Contra Costa Sanitary District	Lamorinda-Olympic Blvd. 2 Parallel Sewer	Sewer project in Olympic Blvd., from Reliez Station Road to Newell Avenue	Leland Reservoir, Tice Pumping Plant	2016-2017	Central Contra Costa Sanitary District, 2006
Other Overlaps						
E-1	EBMUD	Diablo Vista Reservoir Replacement	Drain and decommission 2.9-million-gallon reservoir and replace with a new 0.62-million-gallon reservoir at the existing reservoir site at a higher overflow elevation.	Walnut Creek WTP	Planned / Feb. 2010 through Jul. 2011	EBMUD, 2005c
	City of Lafayette	2006 Pavement Management Program	Rehabilitation and maintenance of 25 streets citywide, including Happy Valley Road, Mt. Diablo Boulevard, and St. Mary's Road (not shown on figure).	Various locations	Approved for 2006	City of Lafayette, 2006
	Central Contra Costa Sanitary District	Collection System Renovation Program	Replace or renovate small-diameter sewers in Lafayette at various locations (allowance for future projects – not shown on figure).	Various locations	Planned / no certain dates	Central Contra Costa Sanitary District, 2005
MORAGA						
Overlapping Haul Routes with Fay Hill Reservoir Replacement, Fay Hill Pumping Plant and Pipeline, Glen Pipeline Improvements, Moraga Road Pipeline, Moraga Reservoir, Sunnyside Pumping Plant, St. Mary's Road/Rohrer Drive Pipeline						
F-1	EBMUD	Decommission Jonas Hill Reservoir	Decommission existing reservoir.	Moraga Road Pipeline	Completed in 2005	EBMUD, 2005b
F-2	Central Contra Costa Sanitary District	Concrete Corrosion Control Work on St. Mary's Road	Install 2,850 feet of cured-in-place pipe inside existing 33-inch sewer along easement paralleling St. Mary's Road beginning at Bollinger Canyon Road and extending southeast along Lafayette Moraga Trail (all internal work, no trench excavation); parallels one segment of the St. Mary's Road/Rohrer Drive Pipeline.	St. Mary's Road/Rohrer Drive Pipeline	Approved / 2006	Central Contra Costa Sanitary District, 2005
F-3	Central Contra Costa Sanitary District	Moraga Way Pumping Station Force Main	Evaluation and rehabilitation of existing force main paralleling St. Mary's Road near St. Mary's College and Bollinger Canyon Road. May overlap with one segment of the St. Mary's Road/Rohrer Drive Pipeline.	St. Mary's Road/Rohrer Drive Pipeline	Approved / 2014	Central Contra Costa Sanitary District, 2005

REVISED TABLE 5-1 (continued)
OTHER PROJECTS IN THE WTTIP AREA WITH POTENTIAL FOR CUMULATIVE IMPACTS

No.[a]	Planning Jurisdiction	Project Name	Project Description	Closest WTTIP Project Element[b]	Project Status / Construction Schedule	Source
F-4	Town of Moraga	Rancho Laguna Housing Development	43-single-family housing development on 180 acres of existing open space. Currently in approval process.	Moraga Road Pipeline, Fay Hill Reservoir Replacement, Fay Hill Pumping Plant and Pipeline	Planned / construction date uncertain	Town of Moraga, 2005
F-5	Town of Moraga	Palos Colorados Housing Development	120-lot single-family housing development and 18-hole golf course on existing open space. Currently in approval process.	Moraga Road Pipeline	Planned / construction date uncertain	Town of Moraga, 2005
F-6	Contra Costa County Building Department	Relay Module APN 255-015-13	Relay module for commercial electrical at southwest corner of Moraga Road and Rheem Boulevard at or very near the same site as the Fay Hill Pumping Plant.	Fay Hill Pumping Plant and Pipeline, Moraga Road Pipeline, Fay Hill Reservoir Replacement	Approved / construction date uncertain	Gomez, 2005
F-7	Contra Costa County Building Department	Metro PCS APN 255-015-14	Metro PCS cell site on Rheem Boulevard just west of Moraga Road; on other side of Center Street from the Fay Hill Pumping Plant. Currently in for plan check.	Fay Hill Pumping Plant and Pipeline, Moraga Road Pipeline, Fay Hill Reservoir Replacement	Approved / construction date uncertain	Gomez, 2005
F-8	EBMUD	Rheem Pumping Plant Upgrade	Upgrade Rheem Pumping Plant from 1.6 million gallons per day (mgd) to 3.2 mgd.	Fay Hill Pumping Plant and Pipeline, Moraga Road Pipeline, Fay Hill Reservoir Replacement	Approved / Dec. 2006 through Nov. 2007	EBMUD, 2005a
F-9	EBMUD	Lamorinda Recycled Water Project	As part of its water recycling program, EBMUD may implement a recycled water project in the Lamorinda area. This potential project could serve the proposed Palos Colorados development in Moraga (project F-5, above). Facilities would consist of a satellite recycled water treatment plant located next to the development to produce approximately 200,000 gallons per day of recycled water for irrigation of the golf course proposed as part of the development. The source of wastewater for the project would be an existing sewer located along Moraga Road, which would overlap with a part of the Moraga Road Pipeline. Construction of the recycled water project is dependent upon approval of the Palos Colorados development.	Moraga Road Pipeline	Proposed / timing dependent on approval of Palos Colorados project	Hu, 2006
F-10	Town of Moraga	New Office Building	Construction of a new office building and site improvements at 533 Moraga Road.	Fay Hill Pumping Plant and Pipeline, Moraga Road Pipeline, Fay Hill Reservoir Replacement	Approved / construction date uncertain	Town of Moraga, 2005

REVISED TABLE 5-1 (continued)
OTHER PROJECTS IN THE WTTIP AREA WITH POTENTIAL FOR CUMULATIVE IMPACTS

No.[a]	Planning Jurisdiction	Project Name	Project Description	Closest WTTIP Project Element[b]	Project Status / Construction Schedule	Source
F-11	Town of Moraga	Hetfield Conceptual Development Plan	Subdivision of 58.2 acres on Hetfield Place into six lots.	St. Mary's Road/Rohrer Drive Pipeline	Application under consideration by the design review board / construction date uncertain	Dennsler, 2006
F-12	Town of Moraga	Los Encinos Housing Development	Single-family housing development.	St. Mary's Road/ Rohrer Drive Pipeline	April 2006	Dennsler, 2005
F-13	Town of Moraga	Bollinger Canyon General Plan Amendment and Rezoning Study	Single-family housing development.	St. Mary's Road/ Rohrer Drive Pipeline	Application submitted but project on hold because of additional studies required	Town of Moraga, 2005
F-14	Town of Moraga	Repave Moraga Road	Repave Moraga Road between Lafayette town line and Buckingham Drive	Fay Hill Pumping Plant and Pipeline, Moraga Road Pipeline, Fay Hill Reservoir Replacement	2009	Town of Moraga, 2006
Other Overlaps						
	Central Contra Costa Sanitary District	Collection System Renovation Program	Replace or renovate small-diameter sewers in Moraga (allowance for future projects – not shown on figure).	Various locations	Planned / no certain dates	Central Contra Costa Sanitary District, 2005
ORINDA						
Overlapping Haul Routes with Orinda WTP, Orinda-Lafayette Aqueduct, Happy Valley Pumping Plant and Pipeline, and San Pablo Pipeline						
G-1	Central Contra Costa Sanitary District	Lower Orinda Pumping Station Force Main	Rehabilitation of existing force main on Camino Pablo between Miner Road and Crossroads Shopping Center.	Orinda WTP, Orinda-Lafayette Aqueduct, San Pablo Pipeline	Approved / 2012	Central Contra Costa Sanitary District, 2005
G-2	EBMUD	Orinda Reservoir	Decommission existing reservoir.	Orinda WTP, Orinda-Lafayette Aqueduct, San Pablo Pipeline	Completed in 2005	EBMUD, 2005b
G-3	EBMUD	Encinal Reservoir Replacement	Replace 0.26-million-gallon redwood reservoir with a new 0.19-million-gallon steel-bolted tank at the same site.	Orinda WTP, Orinda-Lafayette Aqueduct, San Pablo Pipeline	Planned / Jan. 2009 through Jun. 2010	EBMUD, 2005d
G-4	EBMUD	Westside Reservoir Replacement	Replace the 0.49-million-gallon Encinal Reservoir with a new 0.36-million-gallon reservoir and demolish the existing reservoir.	Orinda WTP, Orinda-Lafayette Aqueduct, San Pablo Pipeline	Completed in 2005	EBMUD, 2005d

REVISED TABLE 5-1 (continued)
OTHER PROJECTS IN THE WTTIP AREA WITH POTENTIAL FOR CUMULATIVE IMPACTS

No.[a]	Planning Jurisdiction	Project Name	Project Description	Closest WTTIP Project Element[b]	Project Status / Construction Schedule	Source
G-5	EBMUD	Claremont Tunnel Seismic Improvements	Seismic improvements to the existing Claremont Tunnel, including construction of short bypass tunnel at west end in Berkeley and repairs to the tunnel from the Orinda WTP portal (Figure shows only Orinda WTP portion of project.)	Orinda WTP, Orinda-Lafayette Aqueduct, San Pablo Pipeline	Under construction / completion expected by 2007	EBMUD, 2003b
G-6	EBMUD	Folsom South Canal Connection Projects	Construct spillway improvements at Orinda WTP.	Orinda WTP, Orinda-Lafayette Aqueduct, San Pablo Pipeline	Approved / 2008–2009	EBMUD, 2005g
G-7	Central Contra Costa Sanitary District	Flushkleen Force Main Renovation	Replace existing force main on Camino Pablo between Manzanita and Miner Road. Overlaps the Orinda WTP site and segments of the San Pablo Pipeline.	Orinda WTP, Orinda-Lafayette Aqueduct, San Pablo Pipeline	Approved / 2007	Central Contra Costa Sanitary District, 2005
G-8	Central Contra Costa Sanitary District	Trunk Sewer Project – Miner Road, Orinda	Replace approximately 7,200 feet of trunk sewer in Miner Road and Lombardy Lane with lines ranging in size from 15 to 27 inches. Overlaps with segments of the Happy Valley Pipeline.	Happy Valley Pumping Plant and Pipeline	Approved / 2008	Central Contra Costa Sanitary District, 2005
G-9	Central Contra Costa Sanitary District	Trunk Sewer Project – Camino Pablo, Orinda	Replace approximately 1,500 feet of trunk sewer in Camino Pablo near Miner Road with a 15-inch line.	Orinda WTP, Orinda-Lafayette Aqueduct, San Pablo Pipeline	Approved / 2008	Central Contra Costa Sanitary District, 2005
G-10	City of Orinda	Orinda Grove Development	80-dwelling housing development, relocation of city-owned ballfields, and construction of new office building. Project is located on 14.1-acre site, northeast of the intersection of Camino Pablo and Altarinda Road. In approval process; construction anticipated to begin in 2006.	Orinda WTP, Orinda-Lafayette Aqueduct, San Pablo Pipeline	Planned / 2006	City of Orinda, Planning Department, 2006
G-11	Contra Costa County Building Department	APN 266-010-04	Retaining wall work on two parcels west of the Happy Valley Pumping Plant parcel on Lombardy Lane.	Happy Valley Pumping Plant and Pipeline	Approved / construction schedule uncertain	Gomez, 2005
G-12	City of Orinda	Manzanita Drive Bride	Rebuilding Manzanita Drive bridge over San Pablo Creek because of seismic safety concerns and because the bridge is flooded during some storm events. Requires right-of-way for construction of temporary bridge on EBMUD Orinda WTP property. Some overhead utilities have already been relocated to accommodate construction.	Orinda WTP, Orinda-Lafayette Aqueduct, San Pablo Pipeline	Approved / 2007	Lowry, 2006
G-13	PG&E	Rule 20 Electric Undergrounding Program	Undergrounding of utilities along 5,000 feet of Miner Road between Camino Pablo and Lombardy Lane.	Happy Valley Pumping Plant and Pipeline	Approved / 2007 or 2008	Pflaum, 2006

REVISED TABLE 5-1 (continued)
OTHER PROJECTS IN THE WTTIP AREA WITH POTENTIAL FOR CUMULATIVE IMPACTS

No.[a]	Planning Jurisdiction	Project Name	Project Description	Closest WTTIP Project Element[b]	Project Status / Construction Schedule	Source
G-14	Contra Costa Transportation Authority	Santa Maria Intersection Improvements	Review of traffic volumes and movements along Camino Pablo, extending northerly from Highway 24 to Santa Maria intersection. Recommendations may include addition of second lane on Camino Pablo.	Orinda WTP, Orinda-Lafayette Aqueduct, San Pablo Pipeline	Tentative	Contra Costa Transportation Authority, 2006b; Contra Costa Transportation Authority, 2006a
G-15	EBMUD	Sleepy Hollow Reservoir Replacement	Replace 0.14-million-gallon temporary reservoir with a 0.4-million-gallon reservoir.	Happy Valley Pumping Plant and Pipeline	Under construction / expected to be completed by Sept. 2006	EBMUD, 2005e
G-16	Central Contra Costa Sanitary District	Orinda-EBMUD Filter Plant Sewer Replacement	Sewer project in easement through EBMUD right of way near EBMUD Orinda filter plant.	Orinda WTP, Orinda-Lafayette Aqueduct, San Pablo Pipeline	2021-2022	Central Contra Costa Sanitary District, 2006
Overlapping Haul Routes with Ardith Reservoir and Donald Pumping Plant						
H-1	EBMUD	Laguna Pumping Plant Replacement	Replace 0.2-mgd pumping plant with a 0.75-mgd pumping plant. To be located within the Montanera Development.	Ardith Reservoir and Donald Pumping Plant	Approved / Mar. 2007 through Jan. 2008	EBMUD, 2005a
H-2	EBMUD	Laguna No. 2 Reservoir	Construct new 0.27-million-gallon Laguna Reservoir adjacent to existing Laguna Reservoir.	Ardith Reservoir and Donald Pumping Plant	Approved / Mar. 2007 through Jun. 2008	EBMUD, 2005a
H-3	EBMUD	Cross Roads Pumping Plant Replacement	Replace 0.3-mgd pumping plant with a 0.9-mgd pumping plant at existing site and replace 400 feet of 6-inch suction pipeline in Spring Road from pumping plant to Knickerbocker Lane with 8-inch pipeline.	Ardith Reservoir and Donald Pumping Plant	Approved / May 2006 through Jun. 2007	EBMUD, 2005a
H-4	Central Contra Costa Sanitary District	Trunk Sewer Project – Moraga Way, Orinda	Replace approximately 3,400 feet of existing trunk sewer with 12- and 15-inch lines in Moraga Way in the vicinity of El Camino Moraga and Del Rey School.	Ardith Reservoir and Donald Pumping Plant	Approved / 2009	Central Contra Costa Sanitary District, 2005
H-5	Central Contra Costa Sanitary District	Hall Drive Sewer Improvements – Phase 2B Construction	Renovation/replacement of the old easement sewer that serves 18 homes. The new line will be constructed in front yards of homes and tie into the bypass sewer in Hall Drive. Trenchless technologies will be utilized to minimize disruption of the front yards.	Ardith Reservoir and Donald Pumping Plant	Approved / 2011	Central Contra Costa Sanitary District, 2005
H-6	City of Orinda	Southwood Valley Subdivision	16 lot subdivision on 43 acres in Southwood Valley (Southwood Drive and Tara Road). EIR scoping in January 2006.	Ardith Reservoir and Donald Pumping Plant	Planned / construction Date uncertain	Parkman, 2005

REVISED TABLE 5-1 (continued)
OTHER PROJECTS IN THE WTTIP AREA WITH POTENTIAL FOR CUMULATIVE IMPACTS

No.[a]	Planning Jurisdiction	Project Name	Project Description	Closest WTTIP Project Element[b]	Project Status / Construction Schedule	Source
H-7	City of Orinda	Stein Way Subdivision	2-parcel subdivision (will probably be subdivided further) at Stein Way and Oak Road. Application is being appealed.	Ardith Reservoir and Donald Pumping Plant	Planned / construction date uncertain	Parkman, 2005
H-8	EBMUD	New Siesta Reservoir	Construct a new 0.73-million-gallon reservoir and 1,160 feet of 12-inch inlet/outlet pipeline within the Montanera Development. (Figure shows only a generalized location within the Montanera site.)	Ardith Reservoir and Donald Pumping Plant	Approved / Mar. 2007 through Jun. 2008	EBMUD, 2005a
H-9	City of Orinda	Montanera	245-unit single-family housing development in Gateway Valley (western Orinda). Approved; EIR certified; construction to begin in 2006.	Ardith Reservoir and Donald Pumping Plant	Approved / 2006	City of Orinda, Planning Department, 2006
H-10	EBMUD	Moraga Way Pipeline Replacement	Replacement of aging water pipelines on Moraga Way between Overhill Road and Camino Encinas.	Ardith Reservoir and Donald Pumping Plant	Completed in 2005	EBMUD, 2005h
H-11	City of Orinda	Asphalt Reconstruction on Moraga Way	Repave Moraga Way between Camino Encinas and Ivy Drive.	Ardith Reservoir and Donald Pumping Plant	Approved / 2007	Lowry, 2006
H-12	Contra Costa Transportation Authority	Moraga Way/Ivy Drive Roadway Improvement & Signalization Project	Modify intersection of Ivy Drive and Moraga Way to provide free right-turn lane from southbound Moraga Way to Westbound Ivy Drive. Replace existing signal and widen sidewalks to meet Americans with Disabilities Act standards.	Ardith Reservoir and Donald Pumping Plant	Completed in 2004	Contra Costa Transportation Authority, 2006b; Contra Costa Transportation Authority, 2006a
H-13	Contra Costa Transportation Authority	Bryant Way/Moraga Way Improvements	Provide pedestrian and bicycle connection between St. Stephens Trail, downtown Orinda, and the Orinda BART station. Areas encompassed are Bryant Way/Davis Road from St. Stephens Trail to the BART station connection near Camino Pablo; and Moraga Way from Brookwood Road to Bryant Way.	Ardith Reservoir and Donald Pumping Plant	Competed in 2005	Contra Costa Transportation Authority, 2006b; Contra Costa Transportation Authority, 2006a
H-14	Contra Costa Transportation Authority	Moraga Way at Glorietta Boulevard and Camino Encinas	Improvements of Moraga Way at the intersections with Glorietta Boulevard and Camino Encinas.	Ardith Reservoir and Donald Pumping Plant	Completed in 2001	Contra Costa Transportation Authority, 2006b; Contra Costa Transportation Authority, 2006a
H-15	Contra Costa Transportation Authority	Moraga Way Safety Improvements	Construction of safety features on Moraga Way between Glorietta Boulevard and Ivy Drive, including separate walkways, crosswalks, roadway widening, speed bumps, and other traffic calming devices.	Ardith Reservoir and Donald Pumping Plant	Completed in 2002	Contra Costa Transportation Authority, 2006b; Contra Costa Transportation Authority, 2006a

REVISED TABLE 5-1 (continued)
OTHER PROJECTS IN THE WTTIP AREA WITH POTENTIAL FOR CUMULATIVE IMPACTS

No.[a]	Planning Jurisdiction	Project Name	Project Description	Closest WTTIP Project Element[b]	Project Status / Construction Schedule	Source
H-16	Contra Costa Transportation Authority	Widen Eastbound Highway 24 Off-Ramp at Brookwood Road	Widen the eastbound Highway 24 off-ramp at Brookwood Road.	Ardith Reservoir and Donald Pumping Plant	Tentative	Contra Costa Transportation Authority, 2006b; Contra Costa Transportation Authority, 2006a
Other Overlaps						
I-1	City of Orinda	Asphalt Reconstruction on El Nido Ranch Road	Repave El Nido Ranch Road between Stephens Drive and city limit. Would not be implemented until WTTIP would be completed.	Orinda-Lafayette Aqueduct	Approved / construction schedule dependent on WTTIP	Lowry, 2006
	Central Contra Costa Sanitary District	Collection System Renovation Program	Replace or renovate small-diameter sewers throughout Orinda (both sides of Highway 24 – many locations, not shown on figure).	Various locations	Planned / no certain dates	Central Contra Costa Sanitary District, 2005
	Central Contra Costa Sanitary District	Orinda Crossroads Pumping Station Force Main	Evaluation and rehabilitation of existing force mains in various parts downtown Orinda towards Lafayette (location not shown on map).	Various locations	Approved / 2013	Central Contra Costa Sanitary District, 2005
WALNUT CREEK						
J-1	EBMUD	Walnut Creek – San Ramon Improvement Project	Treatment, transmission, and distribution system improvements to correct deficiencies and increase reliability through Walnut Creek and Alamo. Includes four main components: (1) upgrades at Walnut Creek WTP where construction is scheduled to be completed in 2006; (2) northern pipeline and tunnel, where construction began in March 2003 and is scheduled for completion in 2006 and includes a completed segment on Lacassie Avenue, which is the same location as the Leland Isolation Pipeline, and pipeline construction along South Broadway between Newell Avenue and Rudgear Road is scheduled for completion in fall 2006 and is the same location as the New Leland Reservoir and Pipeline and Valve Improvements; (3) recently completed construction of Danville Pumping Plant in Alamo just south of Rudgear Road Trailhead near the New Leland Reservoir and Pipeline and Valve Improvements; and (4) completed construction of the Iron Horse corridor pipeline in Alamo.	Walnut Creek WTP, Leland Isolation Pipeline, New Leland Reservoir and Pipeline and Valve Improvements	Approved / partly completed and partly under construction, construction began in 2003 and scheduled for completion in 2006	EBMUD, 2000; EBMUD, 2006

REVISED TABLE 5-1 (continued)
OTHER PROJECTS IN THE WTTIP AREA WITH POTENTIAL FOR CUMULATIVE IMPACTS

No.[a]	Planning Jurisdiction	Project Name	Project Description	Closest WTTIP Project Element[b]	Project Status / Construction Schedule	Source
Overlapping Haul Routes with Walnut Creek WTP						
K-1	EBMUD	Folsom South Canal Connection Projects	Install isolation butterfly on the north raw water line to the Walnut Creek WTP.	Walnut Creek WTP	Approved / construction date uncertain	EBMUD, 2005g
K-2	City of Walnut Creek	Contra Costa Christian School Expansion	Remove two portable buildings, construct new two-story 22,955-square-foot gymnasium/classroom building on seven-acre site at 2721 Larkey Lane.	Walnut Creek WTP	Under Review	City of Walnut Creek, Planning Division, 2006b
K-3	City of Walnut Creek	Trailside Glen Subdivision	Subdivision on 3.77 acres with seven lots for single-family residential – each lot over 12, 000 square feet at 2637 Larkey Lane.	Walnut Creek WTP	Under Review	City of Walnut Creek, Planning Division, 2006b
Overlapping Haul Routes with Leland Isolation Pipeline						
L-1	Central Contra Costa Sanitary District	Trunk Sewer Project – South Broadway Walnut Creek	Replace approximately 2,000 feet of the existing trunk sewer with a 15-inch line between Newell Avenue and Mt. Diablo Boulevard.	Leland Isolation Pipeline	Approved / 2009	Central Contra Costa Sanitary District, 2005
L-2	Central Contra Costa Sanitary District	Trunk Sewer Project – Walnut Boulevard, Walnut Creek	Replace approximately 7,000 feet of the existing trunk sewer in Walnut Boulevard between Homestead Avenue and Norlyn Drive with lines ranging in size from 18 to 22 inches.	Leland Isolation Pipeline	Approved / 2015	Central Contra Costa Sanitary District, 2005
L-3	Central Contra Costa Sanitary District	Walnut Creek Civic Center Main Improvements	Replace several deteriorated sewer lines along and adjacent to Civic Drive in downtown Walnut Creek.	Leland Isolation Pipeline	Tentative – dependent on Walnut Creek Plan	Central Contra Costa Sanitary District, 2005
L-4	Central Contra Costa Sanitary District	Locust Street Improvements	Replace several deteriorated sewers along and crossing Locust Street in downtown Walnut Creek, with one end overlapping with the Leland Isolation Pipeline.	Leland Isolation Pipeline	Tentative – dependent on Walnut Creek Plan	Central Contra Costa Sanitary District, 2005
L-5	Central Contra Costa Sanitary District	Mt. Diablo Boulevard Main Improvements	Replace several deteriorated sewers along and adjacent to Mt. Diablo Boulevard in downtown Walnut Creek.	Leland Isolation Pipeline	Tentative – dependent on Walnut Creek Plan	Central Contra Costa Sanitary District, 2005
L-6	Central Contra Costa Sanitary District	North Main Street Trunk Improvements	Replace several deteriorated sewers along North Main Street in downtown Walnut Creek between Civic Drive and Mt. Diablo Boulevard.	Leland Isolation Pipeline	Tentative – dependent on Walnut Creek Plan	Central Contra Costa Sanitary District, 2005
L-7	City of Walnut Creek	The Mercer	2.95-acre mixed-use residential and retail project, including 181 residential condominiums, 21,000 square feet of retail space, and two levels of parking. Located at 1655 North California Boulevard, between Trinity Avenue and Cole Avenue. Construction estimated from August 2005 to April 2007 (20 months).	Leland Isolation Pipeline	Approved / 2005–2007	City of Walnut Creek, Planning Division, 2006a

REVISED TABLE 5-1 (continued)
OTHER PROJECTS IN THE WTTIP AREA WITH POTENTIAL FOR CUMULATIVE IMPACTS

No.[a]	Planning Jurisdiction	Project Name	Project Description	Closest WTTIP Project Element[b]	Project Status / Construction Schedule	Source
L-8	City of Walnut Creek	North Creek Church Expansion	Phased expansion including 69,885 square feet of a two-story sanctuary and 22,785 square feet of a gym/multipurpose room on 7.1 acres at 2303 Ygnacio Valley Road.	Leland Isolation Pipeline	Approved	City of Walnut Creek, Planning Division, 2006b
L-9	City of Walnut Creek	Walnut Creek Ford Remodel	29,000-square-foot facility at 1800 North Main Street and 5,370-square-foot facility across the street on Carlback, with street frontage improvements along Carlback and North Broadway. Very close to some sections of the Leland Isolation Pipeline.	Leland Isolation Pipeline	Approved	City of Walnut Creek, Planning Division, 2006a
L-10	City of Walnut Creek	Talbot's Apparel	20,000-square-foot retail facility at 1201 South Main Street at Olympic Boulevard.	Leland Isolation Pipeline	Completed fall 2004	City of Walnut Creek, Planning Division, 2006a
L-11	City of Walnut Creek	Montecito Apartments	120-unit apartment building at 1315 Alma Avenue.	Leland Isolation Pipeline	Completed in 2004	City of Walnut Creek, Planning Division, 2006a
L-12	City of Walnut Creek	Bonanza Street Apartments	24-unit residential project at 1852 Bonanza Street.	Leland Isolation Pipeline	Approved / under construction	City of Walnut Creek, Planning Division, 2006a
L-13	City of Walnut Creek	SBC Switching Building	30,000-square-foot office building at 1755 Locust Street, under construction or near completion. Very close to some sections of the Leland Isolation Pipeline.	Leland Isolation Pipeline	Approved / under construction	City of Walnut Creek, Planning Division, 2006a
L-14	City of Walnut Creek	Ygnacio Valley Road Condominiums	Five-story residential, mixed-use development with 83 condominium units and five livework units at 547 and 565 Ygnacio Valley Road.	Leland Isolation Pipeline	Approved	City of Walnut Creek, Planning Division, 2006a
L-15	City of Walnut Creek	John Muir Medical Center Master Plan Amendment	Construction of numerous improvements and demolition of some structures on 30.66-acre site at 1601 Ygnacio Valley Road.	Leland Isolation Pipeline	Under Review	City of Walnut Creek, Planning Division, 2006b
L-16	City of Walnut Creek	Citrus Walk	Construction of 47 homes on 3.81 acres at 3063 Citrus Circle.	Leland Isolation Pipeline	Under construction	City of Walnut Creek, Planning Division, 2006b
L-17	City of Walnut Creek	Kinross Terrace	12-lot residential subdivision on 3.58 acres of existing common-area open space at the end of Kinross Drive.	Leland Isolation Pipeline	Under construction	City of Walnut Creek, Planning Division, 2006b
L-18	City of Walnut Creek	Bancroft Garden	Four-phased development on 3.5 acres to include office/library, multi-use building, gift shop, plant display, sales area, garden maintenance building, and overflow parking at 1500 Bancroft Road.	Leland Isolation Pipeline	Under construction	City of Walnut Creek, Planning Division, 2006b

REVISED TABLE 5-1 (continued)
OTHER PROJECTS IN THE WTTIP AREA WITH POTENTIAL FOR CUMULATIVE IMPACTS

No.[a]	Planning Jurisdiction	Project Name	Project Description	Closest WTTIP Project Element[b]	Project Status / Construction Schedule	Source
L-19	City of Walnut Creek	St. John Vianney Church Expansion	13,106 square feet of additions to a church at 1650 Ygnacio Valley Road.	Leland Isolation Pipeline	Under construction	City of Walnut Creek, Planning Division, 2006b
L-20	City of Walnut Creek	Springfield Montessori Educational Center	Construction of 11,500-square-foot child daycare facility at 2780 Mitchell Drive.	Leland Isolation Pipeline	Under construction	City of Walnut Creek, Planning Division, 2006b
L-21	City of Walnut Creek	Casa Montego II	Construction of 33 multifamily units on 3.65 acres at 1485 Montego.	Leland Isolation Pipeline	Under construction	City of Walnut Creek, Planning Division, 2006b
L-22	City of Walnut Creek	Stoneridge Condo Conversion	340 units converted from apartments to condominiums on 17.25 acres at 1400 Marchbanks Drive.	Leland Isolation Pipeline	Approved	City of Walnut Creek, Planning Division, 2006b
L-23	City of Walnut Creek	Walnut Creek BART Transit Village	Construction of 574 residential units, 30,000 square feet of commercial space, and parking for 1,500 vehicles on 16.2 acres located at 200 Ygnacio Valley Road.	Leland Isolation Pipeline	Approved	City of Walnut Creek, Planning Division, 2006b
L-24	City of Walnut Creek	Ygnacio Valley Road Planned Development	Construction of 109-unit, five-story condominium development with three work/live lofts on 1.01 acres at 547/565 Ygnacio Valley Road.	Leland Isolation Pipeline	Under review	City of Walnut Creek, Planning Division, 2006b
L-25	City of Walnut Creek	Berean Christian High School Field Restoration	Football field renovation, parking lot extension, and other site improvements on seven acres at El Divisadero Avenue.	Leland Isolation Pipeline	Under review	City of Walnut Creek, Planning Division, 2006b
L-26	Central Contra Costa Sanitary District	Contra Costa Canal Sewer Replacement	Sewer project along Canal between Oak Grove Road and Amberwood Lane	Leland Isolation Pipeline	2016-2017	Central Contra Costa Sanitary District, 2006
L-27	Central Contra Costa Sanitary District	Lamorinda-Olympic Blvd. 3 Parallel Sewer	Sewer project in Olympic Blvd. at Alpine Road easement to California Blvd.	Leland Isolation Pipeline	2016-2017	Central Contra Costa Sanitary District, 2006
Overlapping Haul Routes with Leland Bypass Valve and New Leland Reservoir and Pipeline						
M-1	Central Contra Costa Sanitary District	South Main Sewer Sliplining	Slipline or rehabilitate approximately 800 feet of existing 36-inch corrugated-metal pipe in South Main Street just south of I-680 between the South Main off-ramp and Rudgear Road.	New Leland Pressure Zone Reservoir and Pipeline and Valve Improvements	Approved / 2008	Central Contra Costa Sanitary District, 2005
M-2	EBMUD	Rezone Hill Mutual Pressure Zone	Construct Hill Mutual Pipeline Intertie consisting of 1,600 feet of 12-inch steel pipeline extending from the end of Grey Eagle Drive to the southern end of Castle Crest Road, connecting Ridgewood and Holly Pressure Zones.	New Leland Pressure Zone Reservoir and Pipeline and Valve Improvements	Planned / Jan. 2016 through Dec. 2016	EBMUD, 2003a

REVISED TABLE 5-1 (continued)
OTHER PROJECTS IN THE WTTIP AREA WITH POTENTIAL FOR CUMULATIVE IMPACTS

No.[a]	Planning Jurisdiction	Project Name	Project Description	Closest WTTIP Project Element[b]	Project Status / Construction Schedule	Source
			Install individual pressure regulators on 55 homes in the Hill Mutual Pressure Zone. Demolish 0.003-million-gallon Hill Mutual Pressure Tank and 0.4-mgd Hill Mutual Pumping Plant. Demolish 0.12-million-gallon Crest Reservoir and 0.1-mgd Crest pumping plant.			
M-3	Central Contra Costa Sanitary District	Trunk Sewer Project – Rudgear Road Sewer Improvements	Replace approximately 13,000 feet of the existing trunk sewer line in Rudgear Road, Sylvan Road, and Palmer Road with lines ranging in size from 8 to 24 inches.	New Leland Pressure Zone Reservoir and Pipeline and Valve Improvements	Approved / 2009	Central Contra Costa Sanitary District, 2005
M-4	Central Contra Costa Sanitary District	Trunk Sewer Project – Lancaster Road	Replace approximately 5,100 feet of the existing trunk sewer in Lancaster Road and Meadow Road with 15- and 18-inch lines.	New Leland Pressure Zone Reservoir and Pipeline and Valve Improvements	Approved / 2010	Central Contra Costa Sanitary District, 2005
M-7	City of Walnut Creek	4 Seasons Condo Conversion	Conversion of 176 apartment units into condominiums on 2.72 acres at 1385 Creekside Drive.	Leland Isolation Pipeline	Under review	City of Walnut Creek, Planning Division, 2006b
Overlapping Haul Routes with Tice Pumping Plant and Pipeline						
M-5	City of Walnut Creek	Contra Costa Jewish Community Center	Construction of 138 condominium units and reconstruction and enlargement of existing community center up to a total of 68,587 square feet on 8.26 acres at 2071 Tice Valley Boulevard.	Tice Pumping Plant and Pipeline	Under review	City of Walnut Creek, Planning Division, 2006b
M-6	City of Walnut Creek	Rossmoor Detention Basin	Expansion of Tice Creek detention basin at the entrance to Rossmoor.	Tice Pumping Plant and Pipeline	Constructed	City of Walnut Creek, 2006c
Other Overlaps						
N-1	EBMUD	Folsom South Canal Connection Projects	Install new pump control panel and surge pressure control measures at Walnut Creek Pumping Plant		Approved / construction date uncertain	EBMUD, 2005g
	Central Contra Costa Sanitary District	Collection System Renovation Program	Replace or renovate small-diameter sewers in Walnut Creek (allowance for future projects – not shown on figure).	Various Locations	Planned / no certain dates	Central Contra Costa Sanitary District, 2005

REVISED TABLE 5-1 (continued)
OTHER PROJECTS IN THE WTTIP AREA WITH POTENTIAL FOR CUMULATIVE IMPACTS

No.[a]	Planning Jurisdiction	Project Name	Project Description	Closest WTTIP Project Element[b]	Project Status / Construction Schedule	Source
UNINCORPORATED CONTRA COSTA COUNTY (INCLUDING EL SOBRANTE)						
Overlapping Haul Routes with Orinda WTP, Orinda-Lafayette Aqueduct, Happy Valley Pumping Plant and Pipeline, and San Pablo Pipeline						
O-1	EBMUD	San Pablo Dam Seismic Upgrade Project	Upgrade of San Pablo Dam to meet seismic safety requirements.	Orinda WTP, Orinda-Lafayette Aqueduct, San Pablo Pipeline	Planned / Mar. 2008 through Mar. 2010	EBMUD, 2005f
O-2	EBMUD	Water Education Center	Construct a new water education center and offices for conservation division staff (23 employees) at the upper parking lot of the San Pablo Recreation Area.	Orinda WTP, Orinda-Lafayette Aqueduct, San Pablo Pipeline	Planned / 2009	Harris, 2006
O-3	EBMUD	San Pablo Recreation Center Tank Replacement Project	Replacement of 100,000-gallon redwood water tank in the northwest corner of the main recreation area parking lot with a steel tank of the same size to provide fire flows for the Water Education Center.	Orinda WTP, Orinda-Lafayette Aqueduct, San Pablo Pipeline	Planned / 2009	Hanoian, 2006a
O-4	EBMUD	Remodel San Pablo Recreation Area Visitor's Center	Small interior remodel of existing recreation area visitor's center for better customer service for food and retail.	Orinda WTP, Orinda-Lafayette Aqueduct, San Pablo Pipeline	Planned / 2009	Hanoian, 2006b
O-5	SBC	Utility Undergrounding Project	Underground cable on the east side of San Pablo Road from 800 feet south of entrance to recreation area to approximately 3,200 feet north of entrance (near dam).	Orinda WTP, Orinda-Lafayette Aqueduct, San Pablo Pipeline	Constructed in 2005	Colosito, 2006
O-7	Contra Costa County Department of Public Works	San Pablo Dam Road Type III Slurry Seal	Apply type 3 slurry seal surface treatment to San Pablo Dam Road between Wildcat Canyon Road and San Pablo Reservoir spillway.	Sobrante WTP	Approved / 2007–2008	Contra Costa County, Department of Public Works, 2005
O-8	EBMUD	San Pablo Dam Drain Valve Replacement	Repair or replace 60-inch butterfly emergency drain valve	Orinda WTP, Orinda-Lafayette Aqueduct	Planned / 2007	EBMUD
Overlapping Haul Routes with Sobrante WTP						
P-1	Contra Costa County Department of Public Works	Castro Ranch Road Widening	Widen Castro Ranch Road between San Pablo Dam Road and Olinda Road.	Sobrante WTP	Planned	Contra Costa County, Department of Public Works, 2005
P-2	Contra Costa County Department of Public Works	El Portal Drive Widening	Widen El Portal Drive from Richmond city limits to San Pablo Dam Road.	Sobrante WTP	Planned	Contra Costa County, Department of Public Works, 2005

REVISED TABLE 5-1 (continued)
OTHER PROJECTS IN THE WTTIP AREA WITH POTENTIAL FOR CUMULATIVE IMPACTS

No.[a]	Planning Jurisdiction	Project Name	Project Description	Closest WTTIP Project Element[b]	Project Status / Construction Schedule	Source
P-3	Contra Costa County Department of Public Works	Olinda Road Pedestrian Facilities	Provide walking facility for students and other pedestrians from Valley View Road to Olinda Elementary School on Olinda Road.	Sobrante WTP	Approved	Contra Costa County, Department of Public Works, 2005
P-4	Contra Costa County Department of Public Works	El Sobrante Area Micro Surface	Refurbish existing roadway on Appian Way between San Pablo Dam Road and Pinole city limit; Sobrante Avenue between Appian Way and Valley View Road; and Valley View Road between Appian Way and Richmond city limit.	Sobrante WTP	Planned / 2008–2009	Contra Costa County, Department of Public Works, 2005
P-5	Contra Costa County Department of Public Works	San Pablo Dam Road Pedestrian Improvements	Install curb and sidewalk and widen the road in the areas where the frontage improvements have not been installed between Tri Lane and Appian Way.	Sobrante WTP	Approved	Contra Costa County, Department of Public Works, 2005
P-6	Contra Costa County Department of Public Works	San Pablo Dam Road Surface Treatment	Apply surface treatment to San Pablo Dam Road between El Portal Drive and Appian Way.	Sobrante WTP	Planned / 2005–2006	Contra Costa County, Department of Public Works, 2005
P-7	City of Richmond	Knobcone	Subdivision of one lot into five lots at 5801 Knobcone Court.	Sobrante WTP	EIR in preparation / construction schedule unknown	City of Richmond, 2006; Boyce, 2006
P-8	Contra Costa County Department of Public Works	San Pablo Dam Road Micro Surfacing	Apply micro surface to San Pablo Dam Road between El Portal Drive and the Richmond city limit at Tri Lane.	Sobrante WTP	Approved / 2007	Pullman, 2006
P-9	Contra Costa County Department of Public Works	San Pablo Dam Road Type II Micro Surface	Apply Type II micro surface treatment to San Pablo Dam Road between Appian Way and the Richmond city limit.	Sobrante WTP	Planned / 2005–2006	Contra Costa County, Department of Public Works, 2005
P-10	Contra Costa County Department of Public Works	San Pablo Dam Road Middle Turn Lane	Add a middle turn lane to San Pablo Dam Road between Appian Way and Castro Ranch Road.	Sobrante WTP	Planned	Contra Costa County, Department of Public Works, 2005
P-11	Contra Costa County Department of Public Works	San Pablo Dam Road Improvements	Construct San Pablo Dam Road improvements and widening from Appian Way to the Richmond city limit.	Sobrante WTP	Planned	Contra Costa County, Department of Public Works, 2005

REVISED TABLE 5-1 (continued)
OTHER PROJECTS IN THE WTTIP AREA WITH POTENTIAL FOR CUMULATIVE IMPACTS

No.[a]	Planning Jurisdiction	Project Name	Project Description	Closest WTTIP Project Element[b]	Project Status / Construction Schedule	Source
P-12	Contra Costa County Department of Public Works	Amend Road Overlay	Pavement overlay on Amend Road.	Sobrante WTP	Completed / 2003	Finch, 2006
P-13	City of San Pablo	San Pablo Dam Road East Utility Undergrounding	Undergrounding of utilities, construction of sidewalk, curb, and gutter, repair of failing pavement sections, edge grinding, and overlay of existing pavement at the eastern end of San Pablo Dam Road within the city limits of San Pablo.	Sobrante WTP	Completed in 2005	City of San Pablo, 2006
P-14	City of San Pablo	San Pablo Dam Road Pedestrian, Amador Street to Morrow Drive	Install a pedestrian path where there are currently no pedestrian facilities on San Pablo Dam Road.	Sobrante WTP	Planned / 2006	City of San Pablo, 2006
P-15	City of San Pablo	I-80/San Pablo Dam Road Interchange Reconstruction	Reconstruction of freeway interchange to improve traffic flow and better accommodate pedestrians and bicyclists.	Sobrante WTP	Planned / 2009	City of San Pablo, 2006
P-16	City of San Pablo	San Pablo Dam Road Storm Drain Repair	In-place repair of a 24-inch-diameter storm drain line between Morrow Drive and El Portal Drive that carries stormwater runoff from San Pablo Dam Road to San Pablo Creek.	Sobrante WTP	Completed in 2005	City of San Pablo, 2006
P-17	City of San Pablo	San Pablo Dam Road Subdrain Manhole Relocation	Construction of new intercept wells to tie into an existing subdrain system and convey subsurface drainage to the storm drain system between Morrow Drive and El Portal Drive. Needed to maintain proper drainage of a former landslide repair.	Sobrante WTP	Completed in 2005	City of San Pablo, 2006
P-18	City of Richmond	Forest Green Estates	120 single-family residential units at the end of Wesley Road near Clark Road and San Pablo Dam Road.	Sobrante WTP	EIR expected in Feb. 2003 / construction schedule unknown	City of Richmond, 2006; Light, 2006
P-19	City of Richmond	The Oaks	Possible 54 single-family homes at 1201 Castro Ranch Road.	Sobrante WTP	Approved, but tentative	City of Richmond, 2006; Light, 2006
P-20	City of Richmond	Canyon Oaks II	36 single-family homes north of Castro Ranch Road intersection with San Pablo Dam Road.	Sobrante WTP	EIR in preparation / construction schedule unknown	City of Richmond, 2006; Light, 2006
P-21	West Contra Costa Unified School District	De Anza High School	Phased demolition of existing campus on Valley View and building of a new facility. Proposed access route Appian Way to Valley View.	Sobrante WTP	Approved / 2006–2009	Blackwell, 2006

REVISED TABLE 5-1 (continued)
OTHER PROJECTS IN THE WTTIP AREA WITH POTENTIAL FOR CUMULATIVE IMPACTS

No.[a]	Planning Jurisdiction	Project Name	Project Description	Closest WTTIP Project Element[b]	Project Status / Construction Schedule	Source
Overlapping Haul Routes With Tice Pumping Plant and Pipeline						
Q-1	Contra Costa County Building Department	APN 189-011-033	Grading for new residence; retaining wall on Tice Valley Boulevard just south of Olympic Boulevard.	Tice Pumping Plant	Approved	Gomez, 2005
Q-2	Contra Costa County Department of Public Works	Olympic Avenue Overlay	200 feet of pavement overlay on Olympic Avenue, west of Tice Valley Boulevard.	Tice Pimping Plant and Pipeline	Completed / 2001	Finch, 2006
Q-3	Contra Costa County Department of Public Works	Saranap Area Micro Surface	Apply micro surface treatment to Olympic Boulevard between the Lafayette city limit and Tice Valley Boulevard and to Tice Valley Boulevard between 1620 Tice Valley Boulevard and the Walnut Creek city limit.	Tice Pumping Plant and Pipeline	Approved / 2008–2009	Contra Costa County, Department of Public Works, 2005
Overlapping Haul Routes with Withers Pumping Plant						
R-1	Caltrans/Contra Costa County Department of Public Works	Reliez Valley Road Pedestrian Path	Construct pedestrian path along Reliez Valley Road from Grayson Road to the end of the existing sidewalk, one-half mile to the south.	Withers Pumping Plant	Approved / 2006–2007	Caltrans, 2006; Contra Costa County, Department of Public Works, 2005
R-2	Contra Costa County Department of Public Works	Reliez Valley Road Overlay	Pavement sealant projects on Reliez Valley Road between Alhambra Road and the Lafayette city limit.	Withers Pumping Plant	Completed / 2001–2005	Finch, 2006
R-3	Contra Costa County Department of Public Works	Reliez Valley Road Overlay	Apply micro surface treatment to Reliez Valley Road between 2319 Reliez Valley Road and Withers Avenue.	Withers Pumping Plant	Approved / 2007–2008	Contra Costa County, Department of Public Works, 2005
R-4	City of Pleasant Hill	Best Western Hotel	Construction of three-story hotel at 1432 Contra Costa Boulevard.	Withers Pumping Plant	Constructed	City of Pleasant Hill, 2006
R-5	Central Contra Costa Sanitary District	Contra Costa Boulevard Slipling Project	Sliplining a 33-inch pipe into the existing sewer main underneath Contra Costa Boulevard from Gregory Lane to Chilpancingo Parkway.	Withers Pumping Plant	Constructed	Central Contra Costa Sanitary District, 2005
R-6	Contra Costa Water District	Patterson Boulevard Water Pipeline	Reconstruct the Patterson Boulevard main water pipeline between Boyd Road and Oak Park Boulevard.	Withers Pumping Plant	Constructed in 2005	City of Pleasant Hill, 2006

REVISED TABLE 5-1 (continued)
OTHER PROJECTS IN THE WTTIP AREA WITH POTENTIAL FOR CUMULATIVE IMPACTS

No.[a]	Planning Jurisdiction	Project Name	Project Description	Closest WTTIP Project Element[b]	Project Status / Construction Schedule	Source
R-7	Central Contra Costa Sanitary District	Pleasant Hill Road Corridor	Replace 2,800 feet of existing trunk sewer with an 18-inch line on Pleasant Hill Road between Mercury Way and near Virginia Hills Drive.	Withers Pumping Plant	Planned / 2012	Central Contra Costa Sanitary District, 2005
R-8	Central Contra Costa Sanitary District	Pleasant Hill Grayson Creek	Construct approximately 5,600 feet of 18- and 24-inch trunk sewer from intersection of Pleasant Hill Road and Mercury Way to the Pleasant Hill relief interceptor in Tayolor Boulevard.	Withers Pumping Plant	Constructed in 2001	Central Contra Costa Sanitary District, 2005
Other Overlaps						
	Central Contra Costa Sanitary District	Collection System Renovation Program	Replace or renovate small-diameter sewers in unincorporated Contra Costa County (allowance for future projects – not shown on a figure).	Various Locations	Tentative	Central Contra Costa Sanitary District, 2005
	City of Pleasant Hill	2005 Citywide Pavement Rehabilitation Project	Reconstruction of various streets, including Patterson Boulevard.	Various locations		City of Pleasant Hill, 2006
OAKLAND						
S-1	PG&E	Rule 20 Electric Undergrounding Program	Undergrounding of utilities on MacArthur Boulevard between Alvingroom Court and 98th Avenue.	Upper San Leandro WTP	Ongoing, expected to be complete by Dec. 2006	PG&E, 2006; Chen, 2006
S-2	PG&E	Rule 20 Electric Undergrounding Program	Undergrounding of utilities on MacArthur Boulevard between Alvingroom Court and 73rd Avenue.	Upper San Leandro WTP	Dec. 2006 to Mar. 2007	PG&E, 2006; Chen, 2006
S-3	City of Oakland	Sewer Rehabilitation Project	Sewer rehabilitation projects west of MacArthur Boulevard and generally north of 73rd Avenue.	Upper San Leandro WTP	2011	Amirzehni, 2006
S-4	City of Oakland	Sewer Rehabilitation Project	Sewer rehabilitation projects south of S-3 and generally north of El Monte.	Upper San Leandro WTP	Ongoing	Amirzehni, 2006
S-5	City of Oakland	Sewer Rehabilitation Project	Sewer rehabilitation projects south of S-4.	Upper San Leandro WTP	2012	Amirzehni, 2006
MAJOR HIGHWAY PROJECTS						
CT-1	Caltrans	Caldecott Tunnels to El Curtola Overcrossing Rehabilitation	Rehabilitate Highway 24 between Caldecott Tunnels and El Curtola overcrossing.	To be determined	Status being determined	Caltrans, 2006
CT-2	Caltrans	Orinda and Lafayette Restore Planting and Irrigation	Restore planting and irrigation on Highway 24 from 0.6 miles west of Camino Pablo to the Lafayette city line.	To be determined	Status being determined	Caltrans, 2006
CT-3	Caltrans	Acalanes Road to El Curtola Boulevard Rehab	Rehabilitate Highway 24 between Acalanes Road and El Curtola overcrossing.	To be determined	Status being determined	Caltrans, 2006

REVISED TABLE 5-1 (continued)
OTHER PROJECTS IN THE WTTIP AREA WITH POTENTIAL FOR CUMULATIVE IMPACTS

No.[a]	Planning Jurisdiction	Project Name	Project Description	Closest WTTIP Project Element[b]	Project Status / Construction Schedule	Source
CT-4	Caltrans	Replace Lighting	Replace lighting on Highway 24 between Acalanes Road and El Curtola Boulevard.	To be determined	Status being determined	Caltrans, 2006
CT-5	Caltrans	I-680 Alameda County Line to Rudgear Road – Rehabilitate Roadway	Rehabilitate I-680 between Alameda County line and Rudgear Road.	To be determined	Status being determined	Caltrans, 2006
CT-6	Caltrans	I-680 Alameda County Line to Rudgear Road – Rehabilitate Roadway	Rehabilitate I-680 between Alameda County line and Rudgear Road.	To be determined	Status being determined	Caltrans, 2006
CT-7	Caltrans	Newell/Ygnacio/El Curtola Replacement Planting	Conduct replacement planting on I-680 and Highway 24 from Newell Avenue to Ygnacio Valley Road and El Curtola.	To be determined	Status being determined	Caltrans, 2006
CT-8	Caltrans	I-680 HOV Lane, Marina Vista to North Main	Widen I-680 between North Main Street and Marina Vista Boulevard for high-occupancy vehicle lanes.	To be determined	Status being determined	Caltrans, 2006
CT-9	Caltrans	Parkside Drive/Contra Costa Boulevard Replacement Planting	Replacement planting on I-680 between Parkside Drive and Contra Costa Boulevard.	To be determined	Status being determined	Caltrans, 2006
CT-10	Contra Costa Transit Authority	Caldecott Tunnel Improvement Project	Construct a fourth bore between Contra Costa and Alameda Counties.	To be determined	Preparation of environmental documents is underway	Contra Costa Transportation Authority, 2006b
SYSTEMWIDE						
	Freeport Regional Water Authority (Sacramento County Water Agency and EBMUD)	Freeport	The Freeport Regional Water Project (FRWP) is a cooperative effort of the Sacramento County Water Agency (SCWA) and EBMUD to provide surface water from the Sacramento River just below its confluence with the American River to customers in Sacramento County and the East Bay. The project will divert water from the Sacramento River at the Freeport Bend, upstream of the town of Freeport, and convey it through new, large pipelines to SCWA and EBMUD facilities. SCWA will treat and distribute water throughout the year to its service area in central Sacramento County. EBMUD will rely on the FRWP for a supplemental water supply during dry years only, estimated to be three out of every 10 years. The project does not include construction of any major facilities in the WTTIP study area, but the addition of this water supply to the EBMUD system may affect existing water treatment and transmission operations.	To be determined	Approved / construction 2006–2009	Freeport Regional Water Authority, 2006

REVISED TABLE 5-2
PROPOSED WTTIP PROJECT CONSTRUCTION SCHEDULES

WTTIP Facility	Land Use Jurisdiction	Proposed Construction Schedule				Cumulative Project with Potential Overlapping Schedule[a]
			2006–2010	2011–2015	2016–2020	
Sobrante WTP	Contra Costa County	2011–2013		X		P-21
Tice Pumping Plant and Pipeline	Contra Costa County	2008–2010	X			Q-3
Withers Pumping Plant	Contra Costa County	2011–2013		X		R-7
Lafayette WTP	Lafayette	Alternative 1: 2012–2018 Alternative 2: 2015–2017		X X	X X	A-3 A-3
Lafayette WTP Reclaimed Water Pipeline	Lafayette	2007–2009	X			A-2
Glen Pipeline Improvements	Lafayette	2011–2012		X		
Glen Reservoir Decommission	Lafayette	2011–2013		X		
Highland Reservoir and Pipelines	Lafayette	2007–2009	X			A-2
Leland Reservoir Replacement	Lafayette	2014–2016		X		D-1, D-2
Moraga Road Pipeline	Lafayette/Moraga	2007–2009	X			B-2, B-17, F-14
Fay Hill Pumping Plant, Reservoir, and Pipeline Improvements[a]	Moraga	2015–2017		X	X	
Moraga Reservoir	Moraga	2016–2018			X	
St. Mary's Road/Rohrer Drive Pipeline	Moraga / Lafayette / Walnut Creek	2018–2020			X	
Upper San Leandro WTP	Oakland	2011–2013		X		S-3, S-5
Orinda WTP	Orinda	Alternative 1: 2011–2013 Alternative 2: 2012–2018		X X	 X	G-1
Ardith Reservoir and Donald Pumping Plant	Orinda	2013–2015		X		H-5
Happy Valley Pumping Plant and Pipeline	Orinda	2011–2013		X		G-1
San Pablo Pipeline	Orinda / Contra Costa County / Richmond	2016 – 2018			X	
Sunnyside Pumping Plant and Pipeline	Orinda and Lafayette	2011–2013		X		

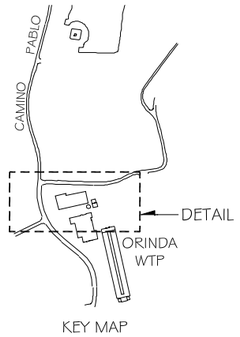
REVISED TABLE 5-2 (continued)
PROPOSED WTTIP PROJECT CONSTRUCTION SCHEDULES

WTTIP Facility	Land Use Jurisdiction	Proposed Construction Schedule				Cumulative Project with Potential Overlapping Schedule[a]
			2006–2010	2011–2015	2016–2020	
Orinda-Lafayette Aqueduct	Orinda / Lafayette	2015–2017		X	X	A-3
Walnut Creek WTP	Walnut Creek	Alternative 1 or 2: 2007–2010	X			J-1
Leland Isolation Bypass Valve and Pipeline	Walnut Creek	2010–2011	X			J-1, L-1, L-7
Leland Pumping Plant	Walnut Creek	2009–2010	X			
New Leland Pressure Zone Reservoir and Pipeline	Walnut Creek	2011–2013		X		M-4

Notes: Italics indicate program-level project.

[a] Cumulative projects in the same vicinity as a WTTIP facility with proposed schedules within the same five-year period. See **Table 5-1** for names and descriptions.

SOURCE: EBMUD, 2006.



KEY MAP

NOTES:

1. Final landscape plans shall insure that tree canopies do not extend over underground pipelines.

2. Locations of existing/proposed underground pipelines are approximate. For locations of the new underground pipelines proposed as part of the WTTIP project refer to figures at the end of chapter 2.

3. EBMUD intends to install replacement landscaping in the area north of Manzanita Drive for additional screening of new facilities.

4. EBMUD intends to install a new gate north of Manzanita Drive, at the existing access drive.

PLANT PALETTE LEGEND

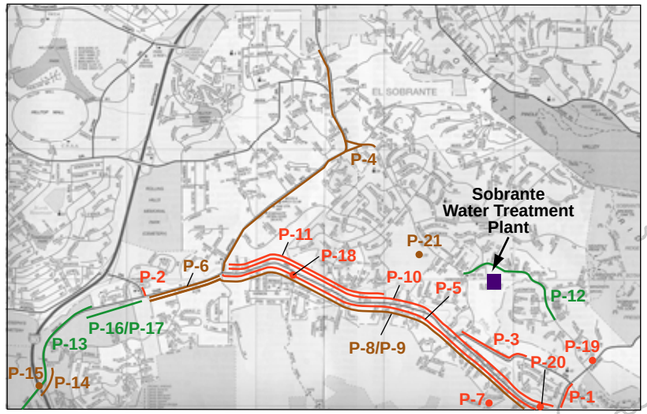
SYMBOL	TYPE OF PLANT	SUGGESTED SPECIES*	FUNCTION
	Coniferous/evergreen tree	Calocedrus decurrens	Screening
	Broad leaf evergreen/ deciduous canopy tree	Quercus agrifolia Quercus lobata	Accent
	Large evergreen shrubs	Arbutus unedo	Screening
	Small to medium deciduous/evergreen shrubs and groundcovers	Rhamnus californica Salvia sp. Teucrium fruticans	Foreground visual interest erosion control
	Ground covers and/or cobbles	Native bunch grasses	

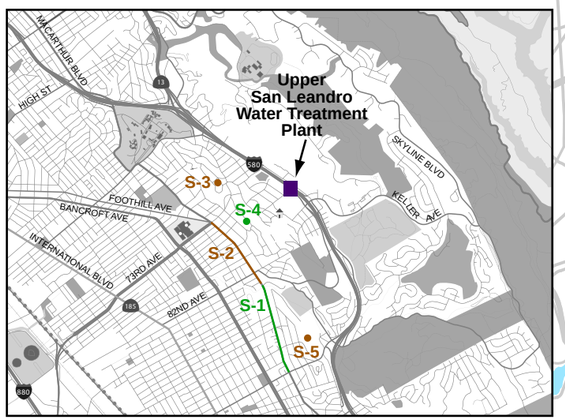
*Recommended species per EBMUD *Plants and Landscapes for Summer-Dry Climates*, 2004

SOURCE: Environmental Vision

EBMUD Water Treatment and Transmission Improvements Program . 204369

Revised Figure 3.3-OWTP-5
Conceptual Landscape Plan -
Orinda WTP Alternative 1 or 2





Project Level
Program Level
Water Treatment Plant
Pumping Plant
Reservoir
Other Facilities
Pipeline
Tunnel

Major Projects in the WTTIP Project Area with Potential for Cumulative Impacts

- Recently completed or currently under construction
- Approved and construction scheduled
- Proposed, planned, or approved but construction not scheduled
- Status Unknown

(See Table 5-1 for Project Names)

SOURCE: East Bay Municipal Utility District; ESA

Revised Figure 5-1
Major Projects in the WTTIP Project Area with Potential for Cumulative Impacts

3.3 Revised Highland Reservoir Site

3.3 Revised Highland Reservoir Site

3.3.1 Description

The following nomenclature is used to discuss sites associated with the Highland Reservoir and Pipelines project:

- DEIR Proposed Highland Reservoir site – the site presented as the preferred site in the DEIR (described in Chapter 2 Project Description).
- DEIR Alternative Highland Reservoir site – the site presented as an alternative under consideration in the DEIR (described in Chapter 6 Alternatives).
- Revised Highland Reservoir site – the site presented in Section 3.3 of this Response to Comments document which is being proposed for approval as part of the FEIR.

As stated in Chapter 1 of this Response to Comments document, EBMUD is proposing to revise the site plan for the Highland Reservoir in response to public comment received on the DEIR, primarily comments regarding the loss of mature oak trees and potential effects on views. Construction of the tank at the revised site would require removal of fewer heritage oak trees than at the DEIR Proposed site. This section of the Response to Comments document contains a description and analysis of impacts for the Revised Highland Reservoir site. Additional graphics for this site can also be found in this section.

Location

The Revised Highland Reservoir site is close to the DEIR Proposed Highland Reservoir site and the DEIR Alternative Highland Reservoir site (see Figure 10). The revised site is approximately 120 feet north and 20 feet west of the DEIR Proposed Highland Reservoir site (see Figure 11). The access road, paved parking area, and fencing would be the same (or virtually the same) as with the DEIR Proposed Highland Reservoir site plan, but shifted north and west. The staging area would be at the same location as the stockpile area (see Figure 10). A few construction worker vehicles would park within the limit of construction just west of the tank site while the rest would park at the existing parking lot at Lafayette Dam.

The shift in location of the tank would place it directly in the path of the Lafayette Reservoir Rim Trail; the Rim Trail would be permanently re-routed as shown on Figure 10. As with the DEIR Alternative site, implementation of the Revised Highland Reservoir site would require the rerouting of an 8-inch underground high pressure gas line.

Design Characteristics

Reservoir Design

Like the DEIR Proposed Reservoir design, the Revised Highland Reservoir tank design has a diameter of 133 feet, a base elevation of 532 feet, and roof elevation of 563 feet. The Revised

Reservoir would require more excavation than the DEIR Proposed Reservoir; however, more soil would be used for backfilling (burying) much of the tank and, consequently, the tank would have a lower profile (see Figure 12). About 15 feet of tank would protrude above-ground on the downhill side of the tank as compared to up to 30 feet above-ground for the DEIR Proposed Highland Reservoir (see Map D-HIGHRES-2 in the DEIR). During construction, a temporary retaining wall (shown in Figure 11) would be built around most of the tank pad. The retaining wall would reduce the overall construction footprint of the project, thereby preserving more trees; after construction of the tank, the space between the retaining wall and the tank would be backfilled. A retaining wall would also be constructed on the downhill side of the tank, partially surrounding the valve pit structure.

Pipeline Design

The pipeline alignments for the Revised Highland Reservoir site would be the same as those for the DEIR Proposed Highland Reservoir site except in the immediate vicinity of the tank due to its revised location, as follows (see Figure 11 in this Response to Comments document and compare to Map D-HIGHRES-1 in the DEIR):

- *Inlet-Outlet Pipeline*. As shown on Figure 10, near the tank, the altered alignment of the Inlet/Outlet Pipeline follows the temporary construction access road alignment instead of following the Lafayette Reclaimed Water Pipeline (see Figure 10).

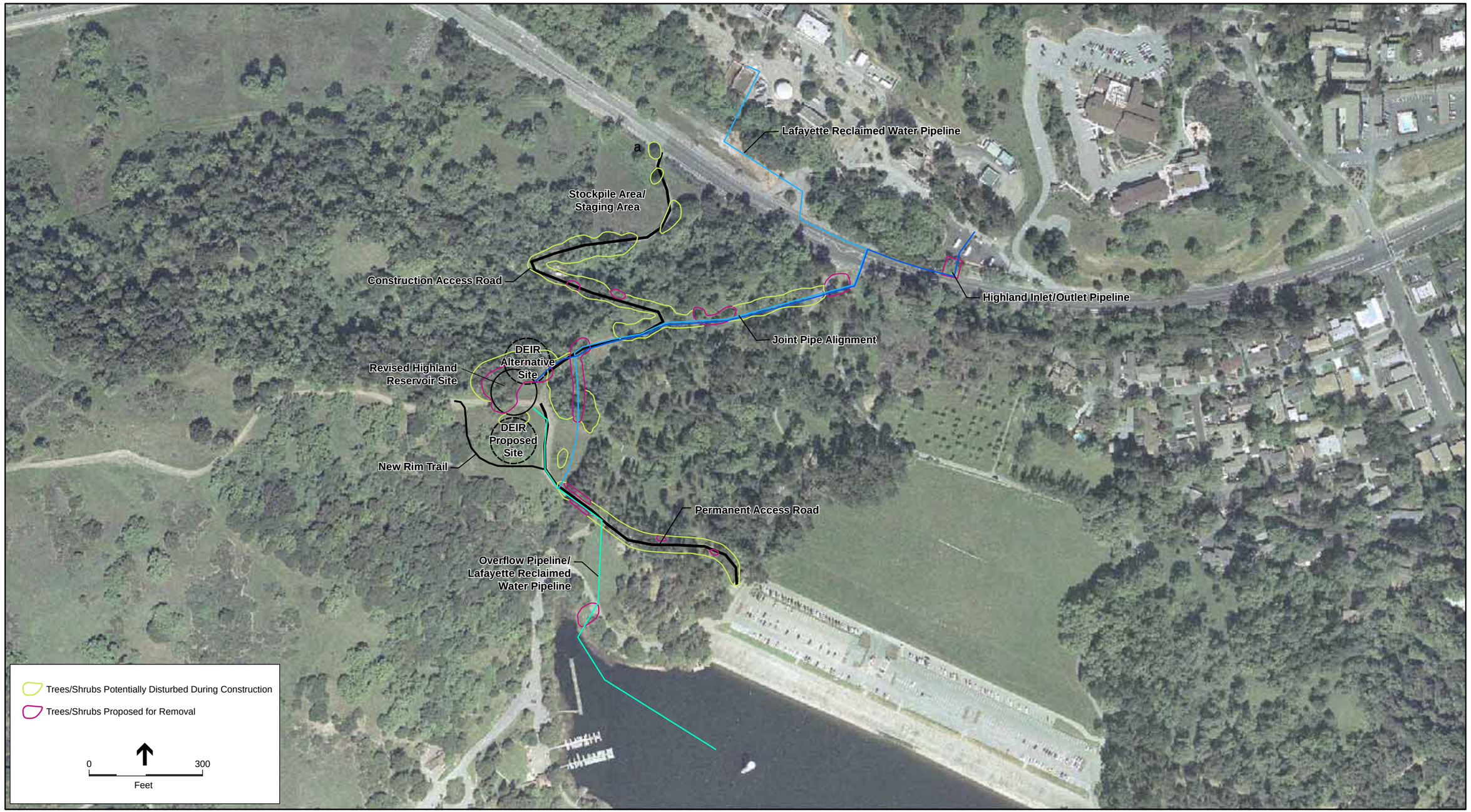
- *Overflow Pipeline*. The altered alignment of the Overflow Pipeline starts at the tank and follows the existing Rim Trail to where it intersects the proposed alignment of the Lafayette Reclaimed Water Pipeline (shown on Figure 10). From this point (as described on DEIR p. 2-41), the Lafayette Reclaimed Water Pipeline and Highland Reservoir overflow pipeline are the same.

Construction Characteristics

Schedule, Work Hours, and Staging

There would be no change to the proposed work hours or schedule for design and construction (see DEIR Tables 2-7 and 2-9, pp. 2-36 and 2-68). A revised version of Table B-HIGHRES-1 is presented herein and indicates that overall, the number of construction vehicles for this project would not change. Although the amount of cut would increase relative to the DEIR Proposed Highland Reservoir tank (see table below), the amount of off-haul would decrease because twice as much material would remain onsite under the Revised Highland Reservoir site project.

	Cut (CY)	Stockpile and Backfill (CY)	Offhaul (CY)
DEIR Proposed Highland Reservoir site	25,600	5,184	20,416
Revised Highland Reservoir site	29,000	11,000	18,000

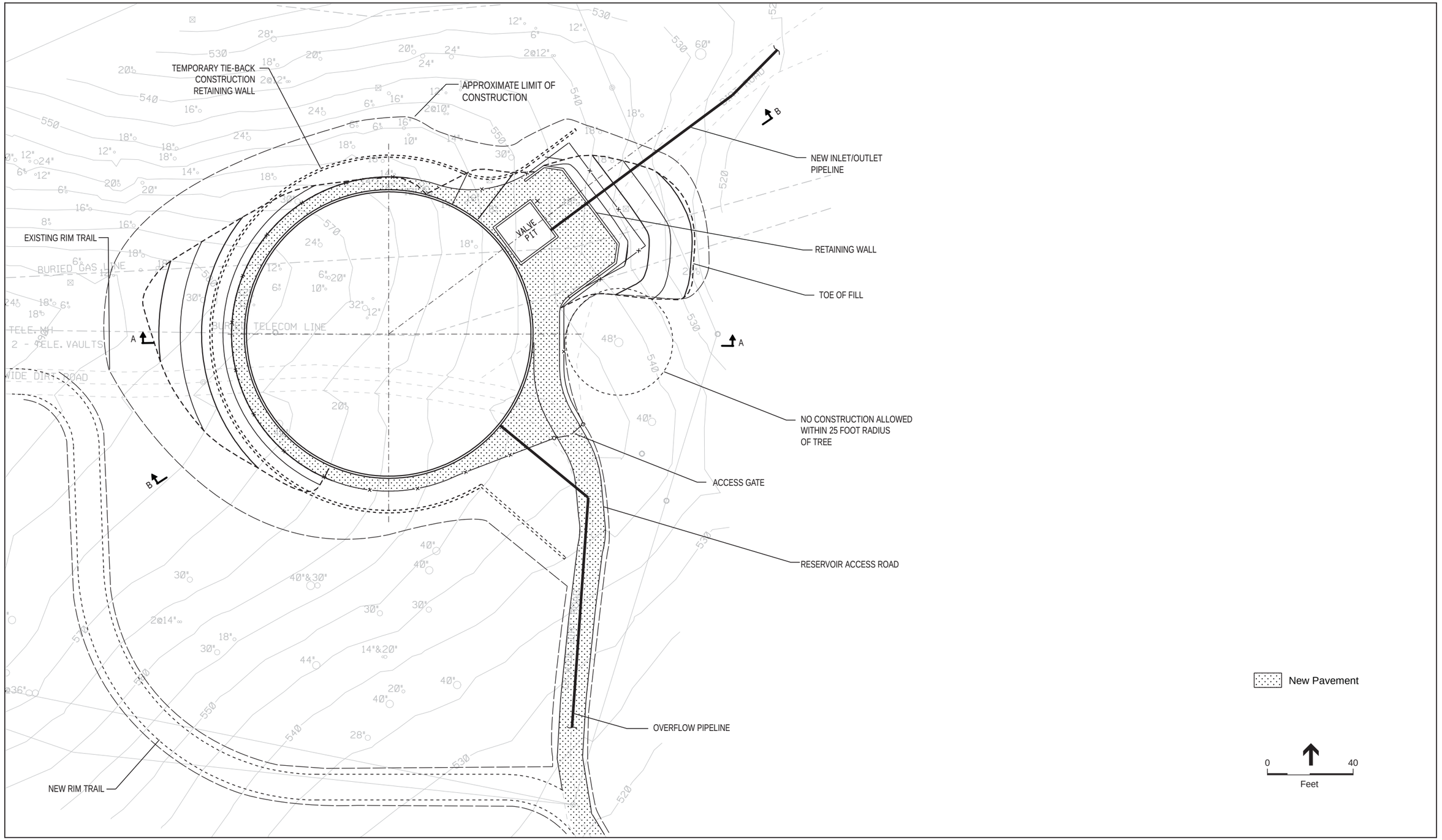


SOURCE: EBMUD

EBMUD Water Treatment and Transmission Improvements Program . 204369

Figure 10

Highland Reservoir and Pipelines;
Lafayette Reclaimed Water Pipeline

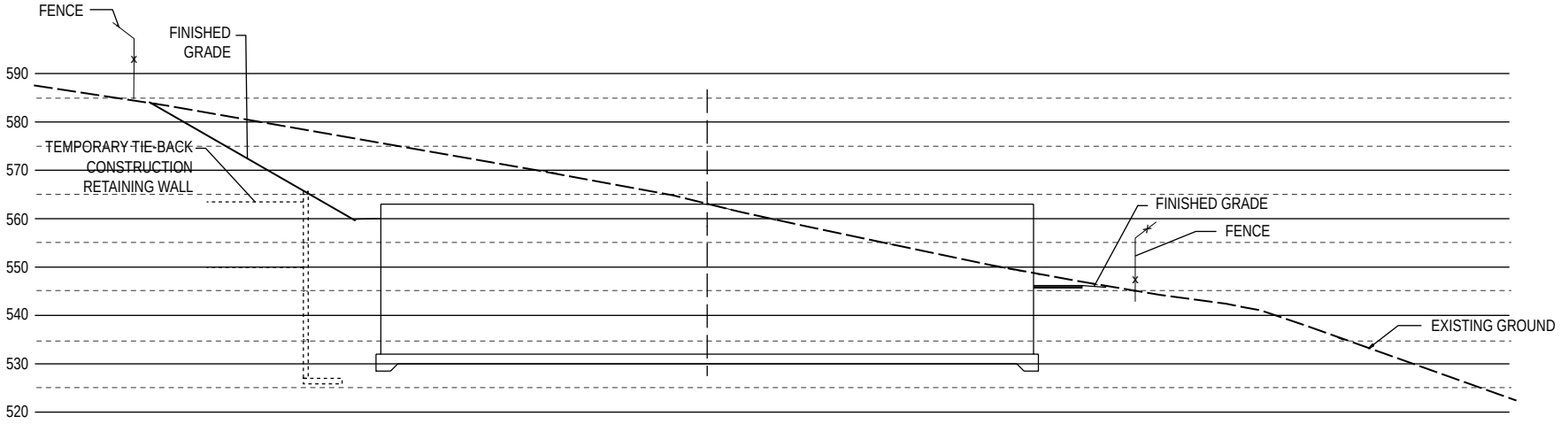


SOURCE: EBMUD

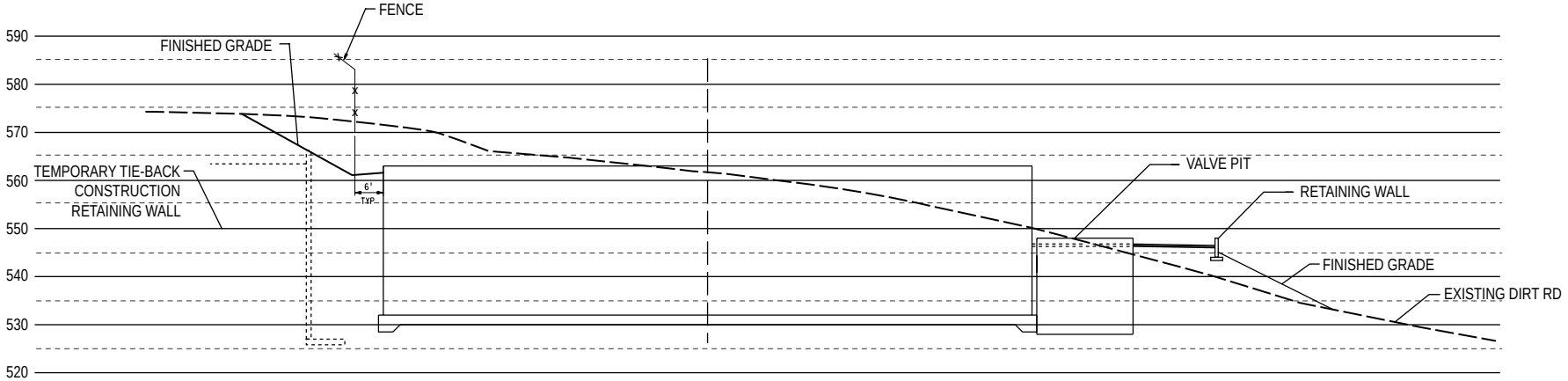
EBMUD Water Treatment and Transmission Improvements Program . 204369

Figure 11

Highland Reservoir and Pipelines - Site Plan



SECTION A



SECTION B

0 40

Feet

SOURCE: EBMUD

EBMUD Water Treatment and Transmission Improvements Program . 204369

Figure 12

Highland Reservoir and Pipelines - Cross-Section

WATER TREATMENT AND TRANSMISSION IMPROVEMENT PROGRAM
Trip Generation Estimate - Revised Highland Reservoir site

Construction Phase	Approx. Duration (weeks)	Haul Trucks (per day)	Materials Trucks (per day)	Worker Vehicles (per day)	One-Way Trips (per day)	Max. One-Way Trips Per Hour	
Mobilization	1	0	4	2	12	4 2	Trucks Vehicles
Excavation	8	84	0	5	178	24 5	Trucks Vehicles
Reservoir foundation & floor slab	3	0	20	15	70	5 15	Trucks Vehicles
Reservoir walls	12	0	8	12	40	2 12	Trucks Trucks
Reservoir roof	4	0	44	12	112	11 12	Trucks Trucks
Valve Pit & Piping	4	0	5	5	20	1 5	Trucks Vehicles
Field Testing and Startup	6	0	1	6	14	1 6	Trucks Vehicles
Backfilling	4	69	0	5	148	18 5	Trucks Vehicles
Site Restoration	7	4	4	6	28	8 6	Trucks Vehicles
Access Road	3	14	9	8	62	6 8	Trucks Vehicles
Demobilization	1	0	4	4	16	4 4	Trucks Vehicles
				MAXIMUM ONE-WAY TRIPS PER DAY =	**178**		
				MAXIMUM ONE-WAY TRIPS PER HOUR =		**24 15**	**Trucks Vehicles**

Assumptions:

Truck and vehicle trip are peak rates.
Haul trucks are for soil disposal and import of new fill.
Excavation and Off-hauling trucks average 9 cubic yards per load, one load every 5 minutes with 7 hour production per day.
Backfilling trucks average 9 cubic yards per load, one load at approximately 6.5 minutes with 7.5 hour production per day.
Backfilling trucks would travel on Construction Access Road to/from the Stockpile Area (i.e. would not use external roads)
29,000 CY of Cut; 11,000 CY of stockpile and backfill; 18,000 CY offhauled.
Material trucks are for forms, rebar, concrete, prestressing materials, paving, and equipment.
Concrete trucks average 9 cubic yards per load.
Aggregate base (for Access Road and Parking Lot) will be delivered to site at a rate of 2 trucks per hour for 7 hours a day.
Worker vehicles consist of vehicles for trades, laborers, equipment operator, superintendent, foreman, district inspector
Work schedule: One shift, 8 hours, M-F between 7:00 am and 6:00 pm, with 7 hours of production per day.
Rates for reservoir floor slabs, walls, and roofs do not last the entire durations.
Reservoir construction peak rate durations: floor slabs -1 day, wall sections 2 weeks, roof-1day
Doesn't show down time nor reflect total duration

Construction Activities

The access route proposed for the Highland Reservoir project (DEIR p.2-76) would not change. Construction activities and equipment described on DEIR pp. 2-76 and 2-77 would remain essentially the same.

As with the DEIR proposed project, the Revised Highland Reservoir would require closure of the Rim Trail from construction staging through the end of construction; the trail realignment would be constructed following completion of construction of the tank.

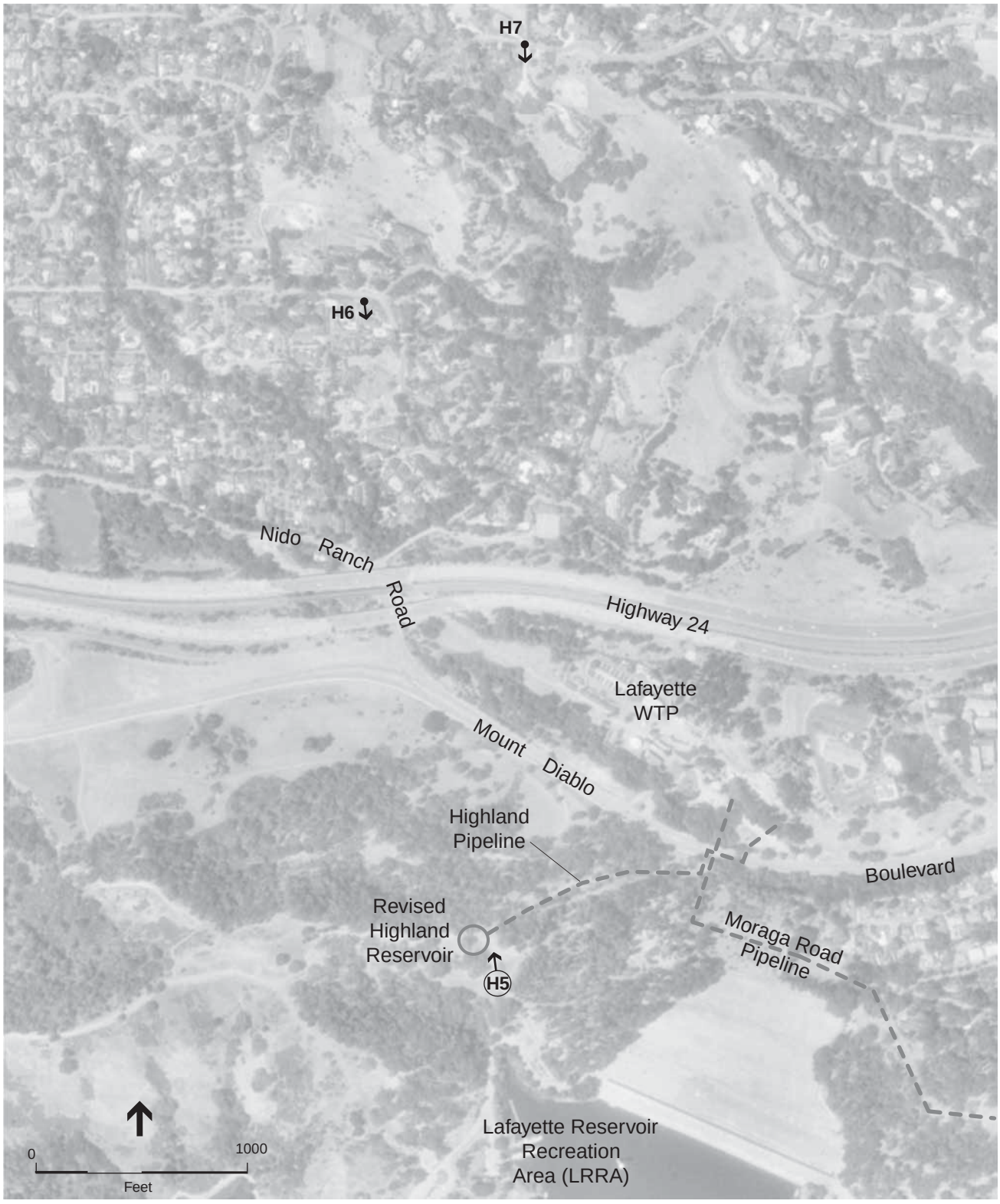
3.3.2 Environmental Impacts

Overall, none of the impacts identified in the DEIR would become more severe based on the revised project site, and some would become less severe, most notably impacts to protected trees. Two key topics, visual quality and biological resources, are discussed below. Table 3-3 indicates the severity and magnitude of all impacts associated with the Revised Highland Reservoir Site relative to impacts of the DEIR Proposed Highland Reservoir Site, and specifies those measures to mitigate environmental impacts and community disruption that the District would adopt as conditions of approving the Revised Highland Reservoir Site.

Visual Quality

Constructing the project at the Revised Highland Reservoir site would substantially alter the site's appearance, but would be somewhat less visually prominent in views from the Rim Trail relative to development of the originally proposed Highland Reservoir Site because the trail would be re-routed past (rather than immediately around) the tank (see Figures 17 through 20 and DEIR Figures 3.3-HIGHRES-1 and 3.3-HIGHRES-5 and 3.3-HIGHRES-6). The re-routed trail would be located downhill from the tank site closer to Lafayette Reservoir, much of it separated from the Revised Highland Reservoir site by a grove of trees. Overall, the Revised Highland Reservoir would be less visible from within the Lafayette Reservoir Recreation Area than the DEIR Proposed Highland Reservoir.

The Revised site is located near the ridge top and some tree removal would occur in this area. These changes could potentially affect a scenic vista as seen from points north. Figure 13 provides viewpoints used for new photos presented in Figures 14 and 15. As seen from the hillside residential area to the north of Highway 24 the reservoir would appear against a landscape backdrop and would be partially screened by existing vegetation (see Figure 14). Additionally, landscaping would be installed following construction. A conceptual landscape plan is provided in Figure 16. The new tank and proposed tree removal would not be particularly visible from this location given the viewing distance of about three quarters of a mile and the presence of a landscape backdrop as well as the screening provided by intervening vegetation. Over time, the proposed landscaping would provide additional screening. A fleeting glimpse of the tank could be available from Highway 24; however, the tank would not generally be seen from the highway. Effects on views from points north of the Revised Highland Reservoir Site



Refer to DEIR Figures 3.3-HIGHRES-1and 2 for additional photos.

1 → Photo Viewpoint **(3) → Simulation Viewpoint**

SOURCE: Environmental Vision

EBMUD Water Treatment and Transmission Improvements Program . 204369

Figure 13
Location of Photo Viewpoints - Revised Highland Reservoir Site

H6. Annotated Photo from Arabis Drive at Timothy Lane looking south

H7. Annotated Photo from Quail Ridge Road near Via Roble looking south

For Viewpoint Location Refer to: Figure 13

SOURCE: Environmental Vision

EBMUD Water Treatment and Transmission Improvements Program . 204369

Figure 14

Photos - Revised Highland Reservoir Site from the North

Annotated photo looking northwest from Rim Trail (H1)

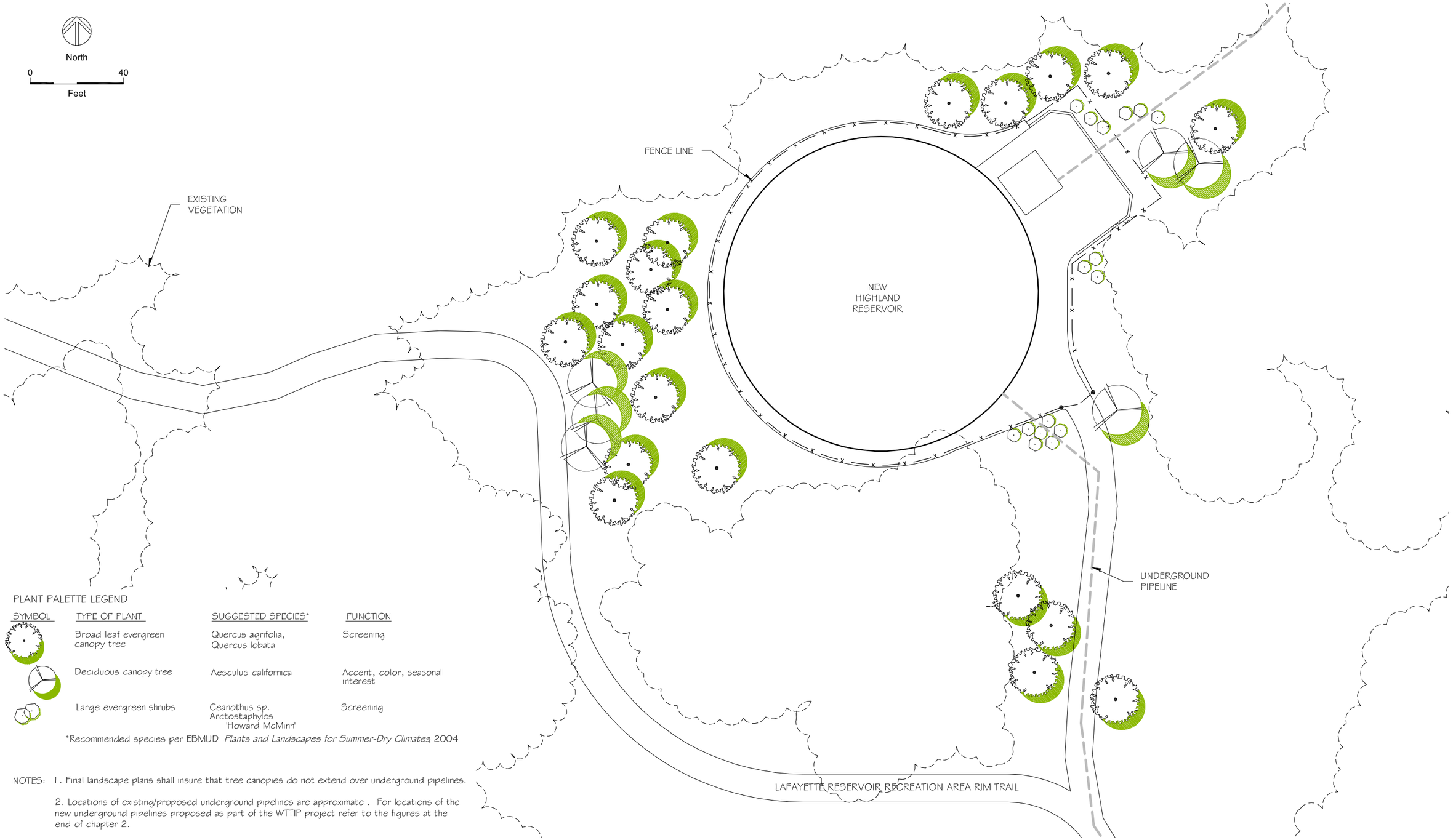
For Viewpoint Location Refer to: DEIR Figure 3.3-HIGHRES-1

EBMUD Water Treatment and Transmission Improvements Program . 204369

SOURCE: Environmental Vision

Figure 15

Photo - Revised Highland Reservoir Site from Rim Trail



SOURCE: Environmental Vision

EBMUD Water Treatment and Transmission Improvements Program . 204369

Figure 16

Conceptual Landscape Plan - Revised Highland Reservoir Site

Existing View looking north from Rim Trail (H5)

Visual Simulation of Proposed Improvements without landscaping

For Viewpoint Location Refer to: Figure 13

SOURCE: Environmental Vision

EBMUD Water Treatment and Transmission Improvements Program . 204369

Figure 17

Visual Simulation without Landscaping-
Revised Highland Reservoir Site from Rim Trail

Existing View looking north from Rim Trail (H5)

Visual Simulation of Proposed Improvements with landscaping

For Viewpoint Location Refer to: Figure 13

SOURCE: Environmental Vision

Figure 18

Visual Simulation with Landscaping-
Revised Highland Reservoir Site from Rim Trail

Existing View looking northwest from Big Oak Trail

Visual Simulation of Proposed Improvements without landscaping

For Viewpoint Location Refer to: Figure 13

SOURCE: Environmental Vision

EBMUD Water Treatment and Transmission Improvements Program . 204369

Figure 19

Visual Simulation without Landscaping-
Revised Highland Reservoir Site from Big Oak Trail

Existing View looking northwest from Big Oak Trail

Visual Simulation of Proposed Improvements with landscaping at 5 years maturity

For Viewpoint Location Refer to: Figure 13

SOURCE: Environmental Vision

EBMUD Water Treatment and Transmission Improvements Program . 204369

Figure 20

Visual Simulation with Landscaping-
Revised Highland Reservoir Site from Big Oak Trail

would not constitute a significant impact *per se*. However, like the DEIR Proposed Highland Reservoir Site, the Revised Highland Reservoir Site also would be in the Hillside Overlay District and would involve development within 250 feet of a Class II ridgeline. Under either the project or this alternative nighttime construction for the Highland Reservoir Inlet/Outlet Pipeline would occur, requiring lighting.

Biological Resources

The Revised Highland Reservoir site and the DEIR Proposed Highland Reservoir site are very close to one another and the pipeline alignments would remain virtually identical for the Revised Highland site as they were for the DEIR Proposed site; therefore most potential impacts to biological resources related to pipeline and tank construction would be similar between the two sites. The number of protected trees estimated to be removed at each site is similar, with an estimated 32 trees removed at the Proposed DEIR site and an estimated 34 trees removed at the Revised Highland site. However, impacts to large diameter "heritage" trees would differ substantially between the DEIR Proposed Reservoir site and the Revised Highland Reservoir site. The DEIR Proposed site supports a grove dominated by large multi-stemmed valley oak and coast-live oak, with 17 trees having a diameter at breast height (dbh) of 30 inches or greater and eight of these having a dbh of 40 inches or greater. The Revised Highland site also supports a mix of primarily coast live oak and valley oak. However, many of these are smaller trees and the site also contains open grasslands. Of the estimated 34 trees to be removed at this site, only eight are 30 inches or greater in diameter and of these, only three have a dbh of 40 inches or greater. Therefore, while the loss of eight trees of heritage quality would still be considered significant and unmitigable, construction of the tank at the Revised site would result in a 50 percent reduction in the number of heritage trees removed relative to the DEIR Proposed site.

TABLE 3-3
COMPARISON OF DEIR PROPOSED HIGHLAND RESERVOIR SITE WITH REVISED HIGHLAND RESERVOIR SITE

Impacts	Highland Reservoir and Pipelines	Revised Highland Reservoir Site	Discussion	Mitigation Measures (as Revised in this Response to Comments Document)
Land Use, Planning, and Recreation				
Divide an Established Community	LTS	LTS=	Like the proposed project, the Revised Highland Reservoir Site would not divide an established community or affect agricultural resources. (Like the project, a segment of the Rim Trail would be temporarily closed during construction and permanently realigned.)	None Required
Agricultural Resources Impacts	LTS	LTS=		None Required
Recreation Resources Impacts	LTS	LTS=		None Required
Visual Quality				
Short-Term Visual Effects during Construction	LTS	LTS=	See text in Section 3.3.2 of the Response to Comments document.	Implement Measure 3.3-1, DEIR p. 3.3-23
Alteration of Appearance of WTTIP Sites	SU	SU=		Implement Measures 3.3-2a, 3.3-2b, and 3.3-2c, DEIR pp. 3.3-35 and 3.3-36
Effects on Views	SU	SU -		Implement Measures 3.3-2a, 3.3-2b, and 3.3-2c, DEIR pp. 3.3-35 and 3.3-36
Effects on Scenic Vistas	SU	SU +		Implement Measures 3.3-2a, 3.3-2b, and 3.3-2c, DEIR pp. 3.3-35 and 3.3-36
New Sources of Light and Glare	SM	SM=		None Required
Geology, Soils, and Seismicity				
Slope Stability	SM	SM=	The topography at the Revised Highland Reservoir site consists of moderate to steep slopes. The revised tank site remains outside of a mapped landslide on the northern slope of the ridgeline. Like the proposed site, the alternative site contains similar upland soils. Slope stability, groundshaking, and soils impacts would be similar under this alternative to those at the proposed site.	Implement Measure 3.4-1, DEIR p. 3.4-25
Groundshaking	SM	SM=		Implement Measure 3.4-2, DEIR p. 3.4-27
Expansive Soils	SM	SM=		Implement Measures 3.4-3a and 3.4-3b, DEIR p. 3.4-27
Liquefaction	SM	SM=		Implement Measure 3.4-4, DEIR p. 3.4-32
Squeezing Ground	--	--		

[a] Impacts summarized; please see DEIR Chapter 3 for details.

LTS = Less Than Significant
SM = Significant and Mitigable
SU = Significant and Unavoidable
-- = Impact does not apply
CBD = Cannot Be Determined

\+ Impact would be greater under this alternative than under the proposed project.
– Impact would be less under this alternative than under the proposed project.
= Impact would be the same (or similar) under this alternative as under the proposed project.

TABLE 3-3 (Continued)
COMPARISON OF DEIR PROPOSED HIGHLAND RESERVOIR SITE WITH REVISED HIGHLAND RESERVOIR SITE

Impacts	Highland Reservoir and Pipelines	Revised Highland Reservoir Site	Discussion	Mitigation Measures (as Revised in this Response to Comments Document)
Hydrology and Water Quality				
Degradation of Water Quality during Construction	SM	SM+	Hydrology and water quality issues would be similar under the proposed project as compared to this alternative because the site is in the same general area, would require similar construction, and would result in a similar though slightly less net change in impervious surfaces. The Revised Highland project would involve more excavation, stockpiles, and grading which could lead to an increase in the potential for erosion and siltation of Lafayette Reservoir. The footprint of disturbance at reservoir site will be smaller than under the proposed project making the increase in impervious surfaces smaller, although still greater than 10,000 square feet.	Implement Measures 3.5-1a and 3.5-1b, DEIR p. 3.5-31
Groundwater Dewatering	LTS	LTS=		None Required
Diversion of Flood Flows	--	--		None Required
Discharge of Chloraminated Water during Construction	--	--		None Required
Operational Discharge of Chloraminated Water	LTS	LTS=		None Required
Change in Impervious Surfaces	SM	SM-		Implement Measure 3.5-6, DEIR p. 3.5-46
Biological Resources				
Loss of or Damage to Protected Trees	SU	SU-	See text in Section 3.3.2 of the Response to Comments document.	Implement Measures 3.6-1a through 3.6-1e, DEIR pp. 3.6-33-3.6-
Degradation to Streams, Wetlands, and Riparian Habitats	SM	SM=		Implement Measures 3.6-2a through 3.6-2f, DEIR pp. 3.6-39–3.6-41
Loss of or Damage to Special-Status Plants	SM	SM=		Implement Measures 3.6-3a through 3.6-3c, DEIR pp. 3.6-42–3.6-43
Disturbance to Special-Status Birds	SM	SM=		Implement Measure 3.6-4a, DEIR pp. 3.6-49-3.6-50
Disturbance to Special-Status Bats	SM	SM=		Implement Measure 3.6-5, DEIR pp. 3.6-55–3.6-56
Disturbance to San Francisco Dusky-Footed Woodrat	SM	SM=		Implement Measure 3.6-6, DEIR pp. 3.6 58–3.6-59
Degradation of Special-Status Aquatic Species Habitat	SM	SM=		Implement Measure 3.6-7a, DEIR pp. 3.6-63-3.6-64
Disruption to Wildlife Corridors	LTS	LTS=		None required

[a] Impacts summarized; please see DEIR Chapter 3 for details.

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TABLE 3-3 (Continued)
COMPARISON OF DEIR PROPOSED HIGHLAND RESERVOIR SITE WITH REVISED HIGHLAND RESERVOIR SITE

Impacts	Highland Reservoir and Pipelines	Revised Highland Reservoir Site	Discussion	Mitigation Measures (as Revised in this Response to Comments Document)
Cultural Resources				
Archaeological Resources, including Unrecorded Cultural Resources	SM	SM=	There are no known cultural resources at the Revised Highland site. Like the DEIR Proposed site, this alternative could result in the discovery of unrecorded resources. Construction of pipelines would be near Bryant Pumping Plant, a potentially historic resource. No adverse impacts would be associated with pipeline construction.	Implement Measures 3.7-1a and 3.7-1b, DEIR p. 3.7-24
Paleontological Resources	SM	SM=		Implement Measure 3.7-2, DEIR p. 3.7-26
Historic Settings	LTS	LTS=		Implement Measure 3.7-3, DEIR p. 3.7-31
Traffic and Circulation				
Increased Traffic	SM	SM=	The estimated maximum number of one-way trips per day would be the same for the Revised Highland site and the DEIR Proposed site (because it is based on truck capacity and the rate at which trucks can be filled during the peak construction phase: excavation). The overall cubic yardage of cut would be greater for the Revised Highland site, but more stockpiling and backfilling would occur onsite as compared to the DEIR Proposed site. Therefore, slightly less soil would be off-hauled, and total truck trips would remain the same as for the DEIR Proposed site. Otherwise, traffic and circulation impacts would be the same as for the DEIR Proposed site.	Implement Measure 3.8-1, DEIR p. 3.8-13
Reduced Road Width	SM	SM=		Implement Measure 3.8-1, DEIR p. 3.8-13
Parking	SM	SM=		Implement Measure 3.8-1, DEIR p. 3.8-13
Traffic Safety	SM	SM=		Implement Measure 3.8-1, DEIR p. 3.8-13
Access	LTS	LTS=		None required
Transit	LTS	LTS=		None required
Pavement Damage/Wear	LTS	LTS=		None required
Air Quality				
Construction Emission	SM	SM=	The haul route for the Revised Highland site would be the same as for the DEIR Proposed site. Construction-related emissions, including diesel particulate from trucks, would be the same for the Revised Highland site as for the DEIR Proposed site as soil offhauled would be only be slightly less (~2000 cy) than under the DEIR Proposed site.	Implement Measures 3.9-1a, 3.9-1b, and 3.9-1c, DEIR p. 3.9-24
Diesel Particulate Emissions along Haul Routes	LTS	LTS=		None required
Tunnel-Related Emissions	--	--		None required
Operational Pollutant Emissions at Treatment Facilities	--	--		None required
Operational Odor Emissions	LTS	LTS=		None required
Secondary Emissions from Electricity Generation	LTS	LTS=		None required

[a] Impacts summarized; please see DEIR Chapter 3 for details.

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TABLE 3-3 (Continued)
COMPARISON OF DEIR PROPOSED HIGHLAND RESERVOIR SITE WITH REVISED HIGHLAND RESERVOIR SITE

Impacts	Highland Reservoir and Pipelines	Revised Highland Reservoir Site	Discussion	Mitigation Measures (as Revised in this Response to Comments Document)
Noise and Vibration				
Construction Noise Increases	SM	SM=	Noise impacts would be similar to the DEIR Proposed project	Implement Measures 3.10-1a, 3.10-1b, 3.10-1c, 3.10-1d, and 3.10-1e, DEIR pp. 3.10-30 to 3.10-33
Noise Increases along Haul Routes	LTS	LTS=		None required
Construction-Related Vibration Effects	LTS	LTS=		Implement Measure 3.10-3a, DEIR p. 3.10-40
Operational Noise Increases	LTS	LTS=		None required
Hazards and Hazardous Materials				
Hazardous Materials in Soil and Groundwater	SM	SM=	There is no known contamination at the existing or alternative site. Impacts would be similar to the proposed project. The inlet/outlet pipeline alignment for both alternatives is the same (the proposed alignment crosses a high-pressure gas line). However, the alternative requires relocation of this gas line because the gas line crosses directly under the alternative tank site.	Implement Measure 3.11-1, DEIR p. 3.11-27
Hazardous Building Materials	--	--		None required
Gassy Conditions in Tunnels	--	--		None required
High-Pressure Gas Line Rupture	SM	SM+		Implement Measure 3.12-1c, DEIR p. 3.12-16
Wildland Fires	--	--		None required
Release from Construction Equipment	LTS	LTS=		None required
Accidental Release during Operation	--	--		None required
Public Services and Utilities				
Disruption of Utility Lines	SM	SM+	Impacts would be similar to the DEIR Proposed site except that an 8-inch transmission pressure gas main (over 60 psi) and a buried telephone conduit would need to be relocated at the Revised Highland site. The inlet/outlet pipeline alignment for both alternatives is the same. There would be slightly less soil offhauled (~2000 cy) than under the DEIR Proposed site.	Implement Measures 3.12-1a through 3.12-1g, DEIR pp. 3.12-16 to 3.12-17
Increase in Electricity Demand	LTS	LTS=		None required
Increase in Public Services Demand	LTS	LTS=		Implement Measures 3.12-1a through 3.12-1g, DEIR pp. 3.12-16 to 3.12-17
Adverse Effect on Landfill Capacity	SM	SM=		Implement Measures 3.12-4a and 3.12-4b, DEIR p. 3.12-20
Failure to Achieve State Diversion Mandates	SM	SM=		Implement Measures 3.12-4a and 3.12-4b, DEIR p. 3.12-20

[a] Impacts summarized; please see DEIR Chapter 3 for details.

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3.4 Happy Valley Pumping Plant Alternative Site

3.4 Supplemental Analysis of the Happy Valley Pumping Plant Alternative Site

3.4.1 Introduction

The following nomenclature is used to discuss sites associated with the Happy Valley Pumping Plant and Pipeline project:

- DEIR Proposed Happy Valley Pumping Plant site – the site presented as the preferred site in the DEIR (described in Chapter 2 Project Description).
- Happy Valley Pumping Plant Alternative site – the site presented as an alternative under consideration in the DEIR (described in Chapter 6 Alternatives).

As stated in Chapter 1 of this Response to Comments document, the DEIR Proposed Happy Valley Pumping Plant site is on Lombardy Lane (DEIR p. 2-74 *et seq*), and the Happy Valley Pumping Plant Alternative site is on Miner Road near Camino Sobrante (DEIR p. 6-33 *et seq*). As indicated in **Comment RCW-1**, the owners of the Lombardy Lane parcel are not willing to sell their property to EBMUD; as indicated in **Comment TU-2**, the owner of the alternative site for the pumping plant is receptive to discussing the sale of a portion of his property. As stated on DEIR p. 6-2, the EBMUD Board of Directors could adopt an alternative in lieu of the WTTIP as proposed. Accordingly, District staff is recommending that the Board of Directors approve the alternative site for the Happy Valley Pumping. Because (a) the alternative site could be obtained from a willing seller and therefore is more desirable to EBMUD, (b) residents living near the alternative site have requested additional information, and (c) there has been a change in the construction characteristics of the Happy Valley Pumping Plant alternative (namely, that numerous trees along Miner Road could, in fact, be preserved), EBMUD has prepared additional design information and supplemental environmental analyses, presented in this section. This additional information does not materially affect the conclusions in the DEIR, but amplifies the description and analysis of development of the Happy Valley Pumping Plant at the alternative site, and specifies those measures to mitigate environmental impacts and community disruption that the District would adopt as conditions of approving the alternative site.

3.4.2 Description

Location

The alternative site is the same location as shown in DEIR Figure 6-6 (DEIR p. 6-34) and as described in DEIR Section 6.8 (pp. 6-33 to 6-35). Figure 21 of this Response to Comments document presents another, larger-scale aerial photograph of the Happy Valley Pumping Plant Alternative Site. Figure 21 indicates trees that would require removal as well as trees that are not proposed for removal but that, without mitigation, could sustain damage during construction.

Trees/Shrubs Potentially Disturbed During Construction

Trees/Shrubs Proposed for Removal

Potentially Jurisdictional Perennial Stream

Potentially Jurisdictional Seasonal Drainage

0 200

Feet

SOURCE: ESA; Aerial Photos: Contra Costa County, 2004

EBMUD Water Treatment and Transmission Improvements Program . 204369

Figure 21

Happy Valley Pumping Plant Alternative Site

Design Characteristics

Figures 22 and 23 depict the proposed site plan and cross-sections for the Happy Valley Pumping Plant Alternative site. As noted above, the only change to the design concept presented in the DEIR is that trees along Miner Road (presumed to require removal in the DEIR) would be preserved. DEIR Table 2-11 (p.2-70) indicates pumping plant design characteristics (proposed capacity in mgd, number and horsepower of the pumps).

There would be no change to the pipeline alignment as characterized on DEIR p. 6-35; the pipeline would terminate 450 feet short of the DEIR Proposed Happy Valley Pumping Plant site.

Construction Characteristics

Schedule, Work Hours, and Staging

There would be no change to the proposed work hours or schedule for design and construction (see DEIR Tables 2-7 and 2-9, pp. 2-36 and 2-68). Construction of the pumping plant and pipeline would occur at the same time. There are no revisions to Table B-HVPP-1 in DEIR Appendix B**,** which provides construction sequencing, duration of specific construction activities, construction staffing, and parking information.

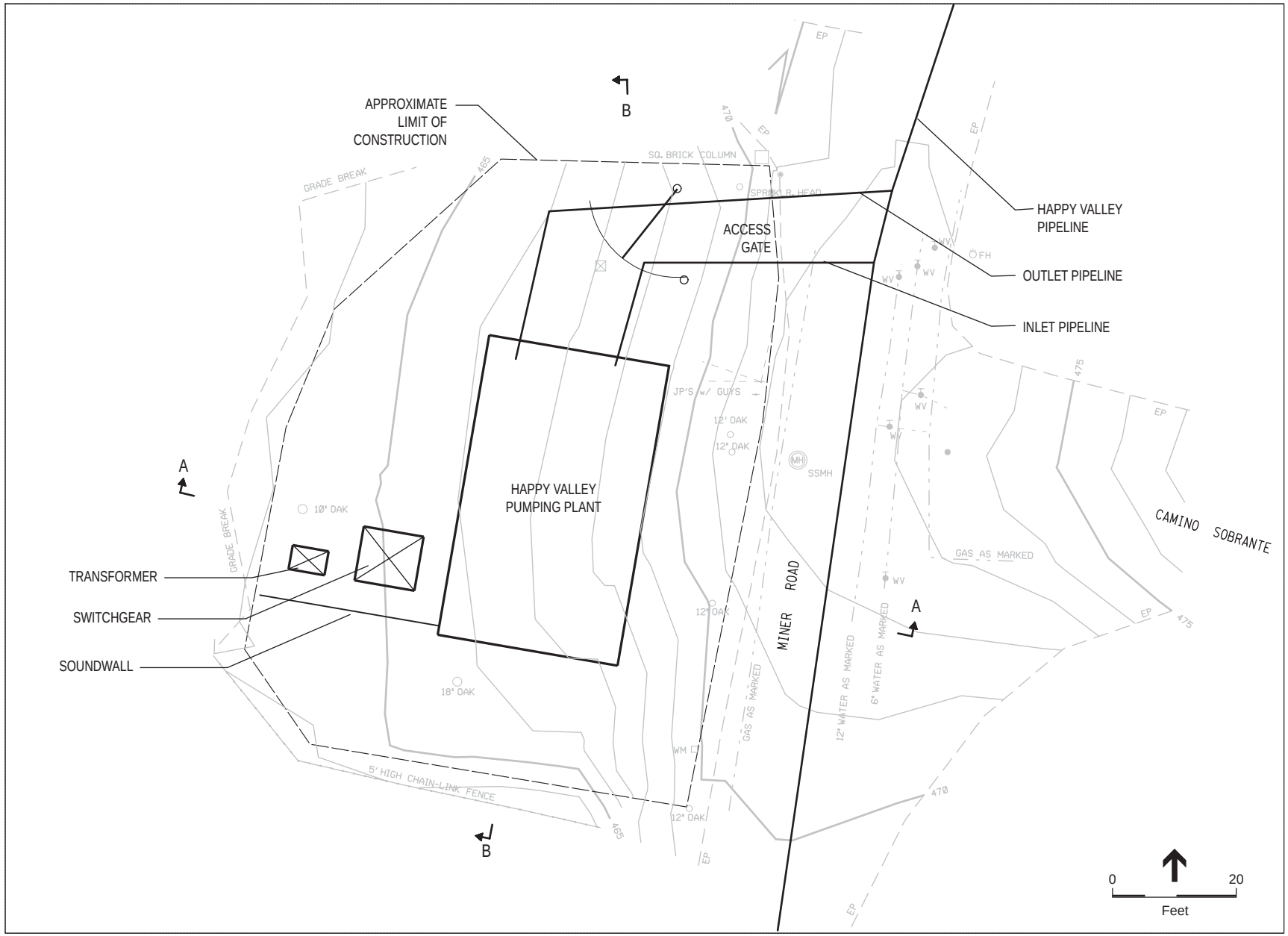
Construction staging would occur onsite and at the Orinda Water Treatment Plant; a shuttle would be provided to transport workers to and from an offsite parking location. A small amount of construction parking may be available on site.

Construction Activities

Construction activities and equipment described on DEIR pp. 2-76 and 2-77 would be the same. As for the DEIR Proposed Happy Valley Pumping Plant: the pumping plant would be constructed on native material; EBMUD contractors would grade the area proposed for the pumping plant and construction staging, construct the concrete/rebar building pad, and then construct the pumping plant building and appurtenant features. Excavated material (estimated at 300 cubic yards) would be incorporated into final site grading. Once the building is finished, the site would be landscaped and disturbed natural areas replanted. Construction equipment would be the same as that listed on DEIR p. 2-75.

3.4.3 Environmental Impacts

Overall, none of the impacts identified in the DEIR for the Happy Valley Pumping Plant Alternative site would be more severe than disclosed in Chapter 6 and some would become less severe, most notably impacts to protected trees. Three key topics, visual quality, biological resources, and noise, are discussed below. Table 3-4 is a reprint of DEIR Table 6-5, and indicates the severity and magnitude of all impacts associated with the Happy Valley Pumping Plant Alternative site relative to impacts of the DEIR Proposed Happy Valley Pumping Plant, and specifies those measures to mitigate environmental impacts and community disruption that the District would adopt as conditions of approving the Happy Valley Pumping Plant Alternative site.

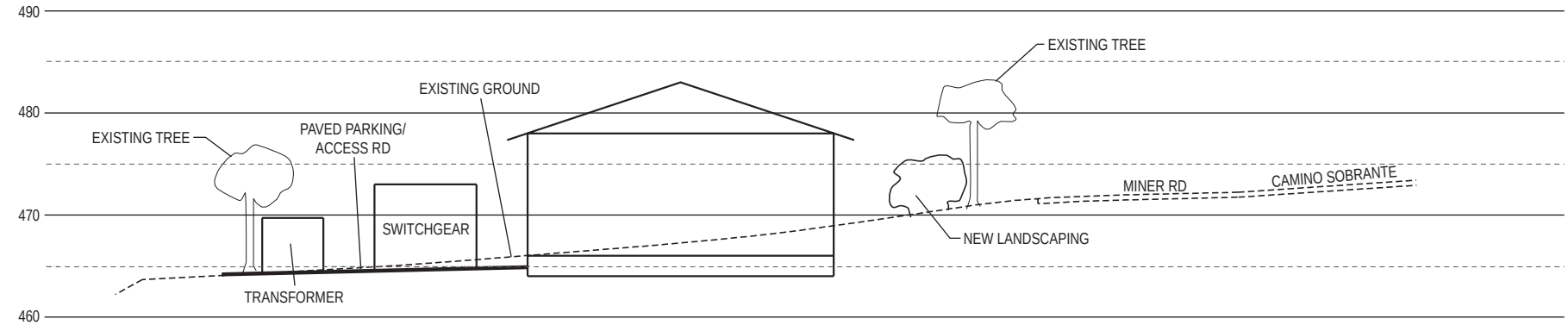


SOURCE: EBMUD

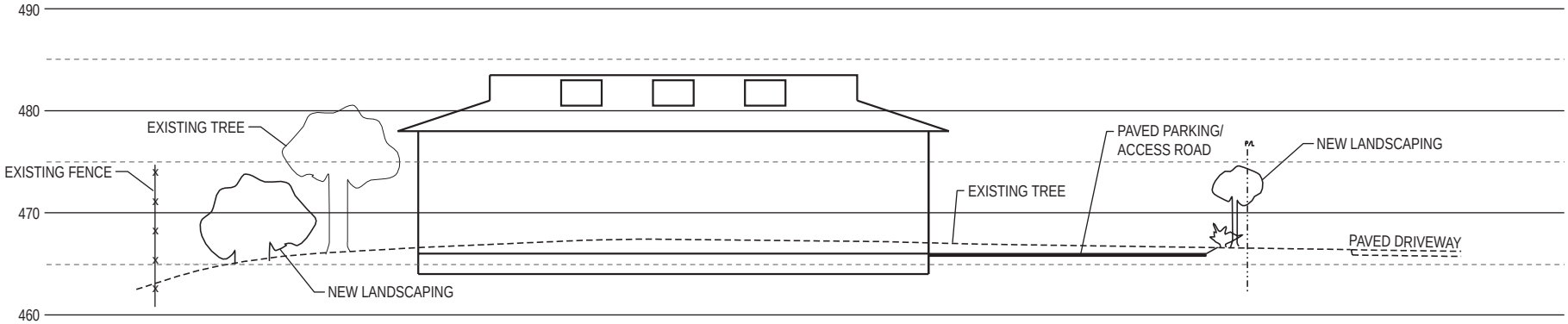
EBMUD Water Treatment and Transmission Improvements Program . 204369

Figure 22

Happy Valley Pumping Plant and Pipeline Alternative Site - Site Plan



SECTION A



SECTION B

0 20

Feet

SOURCE: EBMUD

EBMUD Water Treatment and Transmission Improvements Program . 204369

Figure 23

Happy Valley Pumping Plant Alternative Site-Cross-Section

Visual Quality

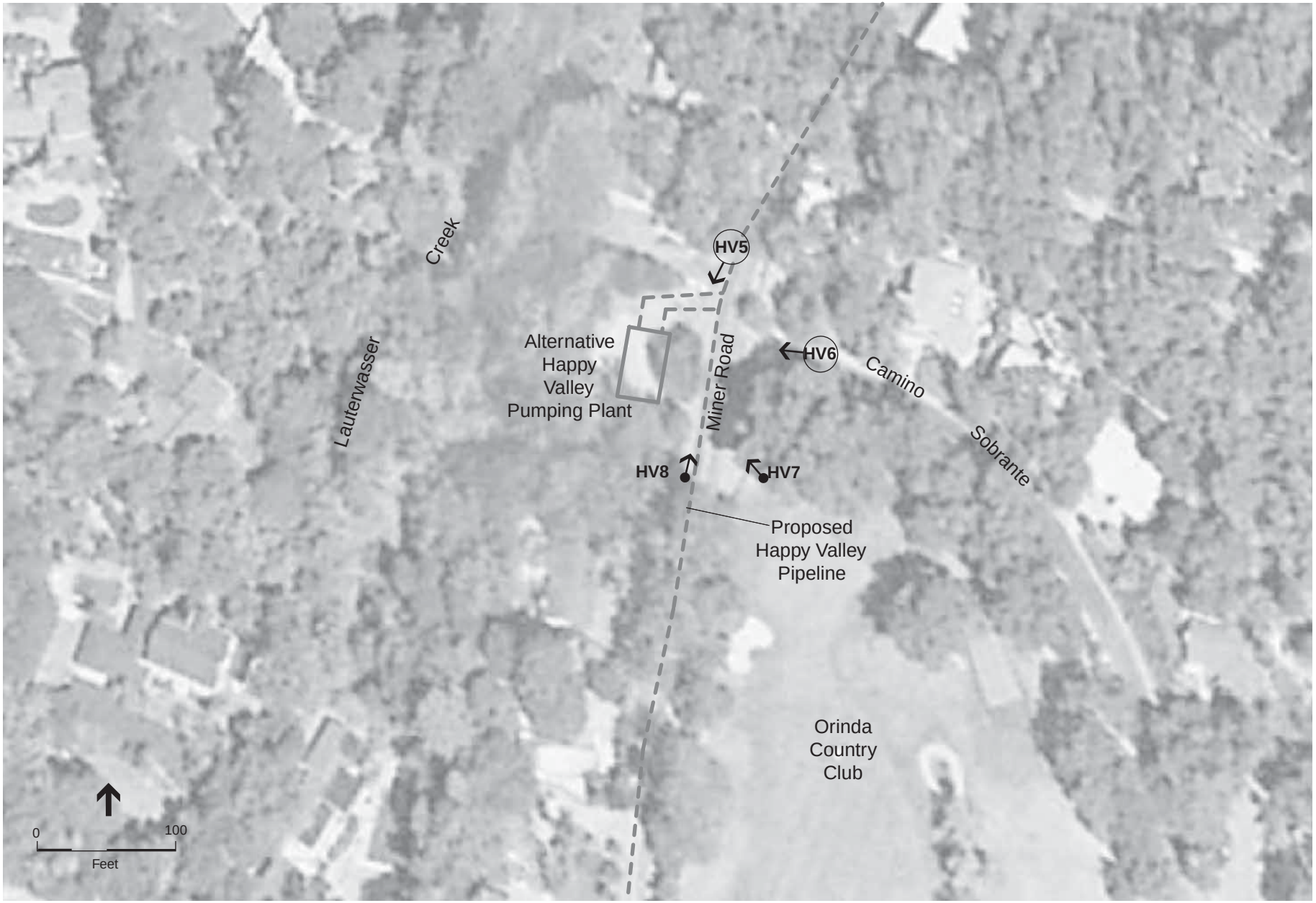
In response to requests for more specific information regarding visual impacts associated with development of the pumping at the alternative site, several photographs and visual simulations were prepared. Figure 24 indicates viewpoint locations of photographs and simulations prepared for the Happy Valley Pumping Plant Alternative site. Figure 25 presents photographs taken of the Happy Valley Pumping Plant Alternative site from the south, southeast, east, and north. As shown in the photos, and in Figure 21 (an aerial photograph), dense roadside vegetation, mature residential landscaping, and houses screen views of the site from much of the surrounding area. Close-range publicly accessible views of the site through gaps in vegetation are available from limited areas located primarily to the north (Photo HV5). Onsite and adjacent trees and shrubs screen views of the site's interior. Relatively dense surrounding vegetation and a garage to the north screens views from some neighboring residential properties; parts of the site are visible from the residence to the south.

Figure 26 depicts a conceptual landscape plant developed for the alternative site. The proposed project landscape concept calls for drought-tolerant shrubs and groundcover to be clustered on site. The new landscaping would provide additional screening, particularly along the site's street frontage. The new planting would complement the sites existing vegetation pattern. As the landscaping becomes established, it would create visual interest and provide additional screening of the new structures. Over time, the proposed project landscaping would integrate the appearance of the new facility into the overall landscape setting. Implementation of Measures 3.3-2a through 3.3-2c, in addition to tree-related mitigation measures (3.6-1a through 3.6-1d), would reduce this impact to a less-than-significant level. Consistent with Measure 3.3-2a, EBMUD would coordinate with and involve neighborhood representatives during development of final landscape plans.

Figures 27 through 30 present visual simulations of the Happy Valley Pumping Plant Alternative site from Camino Sobrante and from Miner Road north of the site. Portions of the roof and sides of the new pumping plant, fence and gate would be visible from these locations. The new building would appear against a backdrop of dense vegetation. The existing vegetation would partially screen the new pumping plant building. As stated in the DEIR, the alteration of the alternative site would be more visually prominent because it would be closer to the road and the site is closer to the road's elevation at Miner Road versus Lombardy Lane. Views of the site from the golf course would be obstructed by existing intervening vegetation. The pumping plant also would be partially visible from the residence to the south.

Biological Resources

Like the proposed site, the alternative site contains protected trees and is bordered by Lauterwasser Creek and a drainage. Site development would require removal of one tree (not "numerous trees", as stated on DEIR p. 6-36). The tree to be removed is a 10-inch oak tree near the west side of the parcel, represented by a dark pink circle on Figure 21. Consequently impacts to protected trees would be less at the alternative site than at the DEIR Proposed Happy Valley Pumping Plant site. The site is less suitable for special-status species than the proposed site but, given the adjacent riparian habitat, their potential presence cannot be ruled out.



SOURCE: Environmental Vision

1 → Photo Viewpoint

3 → Simulation Viewpoint

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Figure 24

Location of Photo Viewpoints - Happy Valley Pumping Plant Alternative Site

HV5. Looking southwest from Miner Road*

HV6. Looking west from Camino Sobrante*

HV7. Looking northwest from Orinda Country Club Golf Course

HV8. Looking north from Miner Road

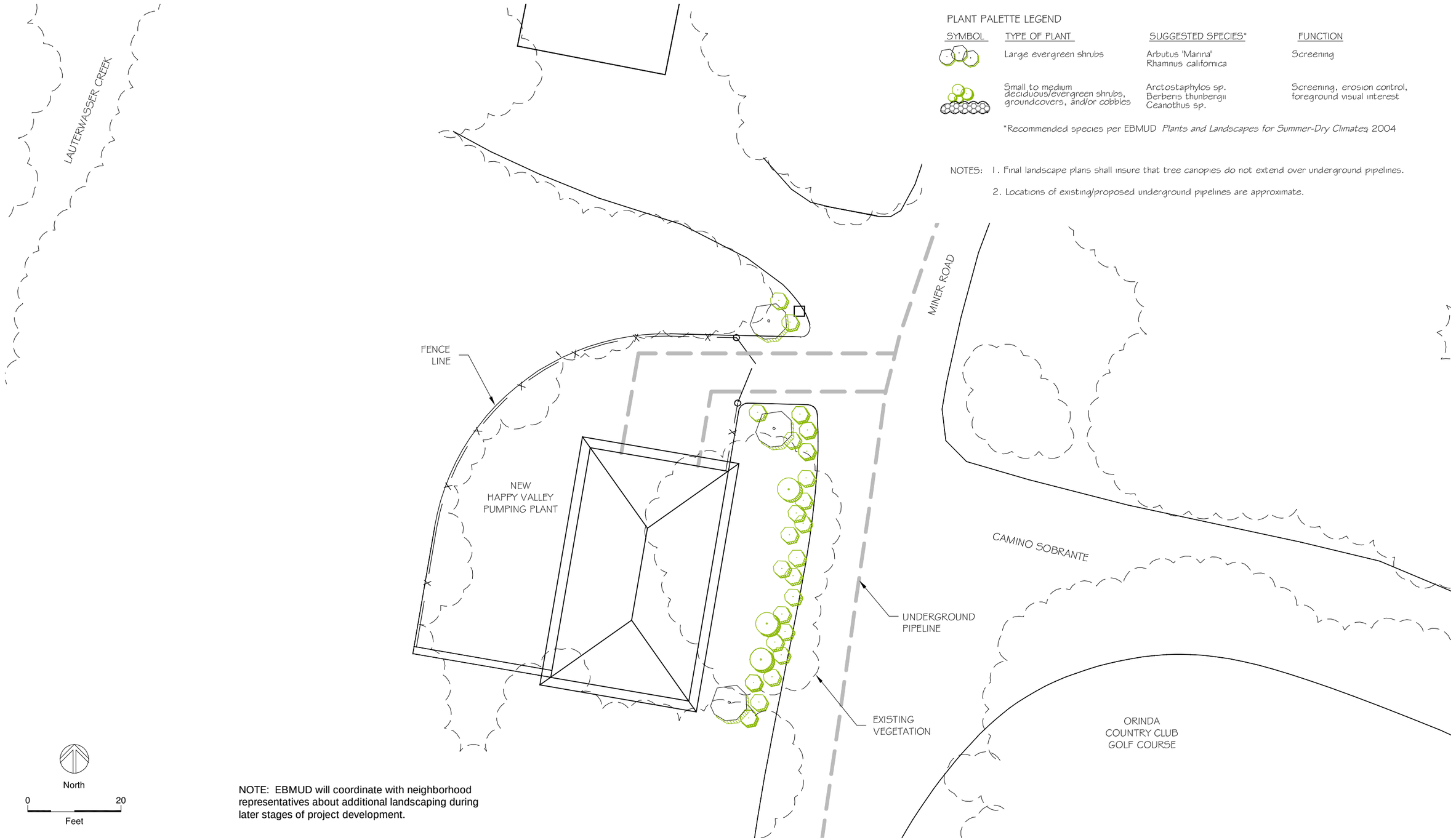
SOURCE: Environmental Vision

*Simulation Photo

For Viewpoint Locations Refer to: Figure 22

Figure 25

Photographs of Happy Valley Pumping Plant Alternative Site and Surroundings



PLANT PALETTE LEGEND

SYMBOL	TYPE OF PLANT	SUGGESTED SPECIES*	FUNCTION
	Large evergreen shrubs	Arbutus 'Marina' Rhamnus californica	Screening
	Small to medium deciduous/evergreen shrubs, groundcovers, and/or cobbles	Arctostaphylos sp. Berberis thunbergii Ceanothus sp.	Screening, erosion control, foreground visual interest

*Recommended species per EBMUD *Plants and Landscapes for Summer-Dry Climates* 2004

NOTES: 1. Final landscape plans shall insure that tree canopies do not extend over underground pipelines.

2. Locations of existing/proposed underground pipelines are approximate.

NOTE: EBMUD will coordinate with neighborhood representatives about additional landscaping during later stages of project development.

SOURCE: Environmental Vision

Figure 26

Conceptual Landscape Plan - Happy Valley Pumping Plant Alternative Site

Existing View looking southwest from Miner Road

Visual Simulation of Proposed Improvements without landscaping

For Viewpoint Location Refer to: Figure 24

EBMUD Water Treatment and Transmission Improvements Program . 204369

SOURCE: Environmental Vision

Figure 27

Visual Simulation without Landscaping -
Happy Valley Pumping Plant Alternative Site from Miner Road

Existing View looking southwest from Miner Road

Visual Simulation of Proposed Improvements with landscaping at 5 years Maturity

For Viewpoint Location Refer to: Figure 24

EBMUD Water Treatment and Transmission Improvements Program . 204369

SOURCE: Environmental Vision

Figure 28

Visual Simulation with Landscaping -
Happy Valley Pumping Plant Alternative Site from Miner Road

Existing View looking west from Camino Sobrante

Visual Simulation of Proposed Improvements without landscaping

For Viewpoint Location Refer to: Figure 24

EBMUD Water Treatment and Transmission Improvements Program . 204369

SOURCE: Environmental Vision

Figure 29

Visual Simulation without Landscaping -
Happy Valley Pumping Plant Alternative Site from Camino Sobrante

Existing View looking west from Camino Sobrante

Visual Simulation of Proposed Improvements with landscaping at 5 years Maturity

For Viewpoint Location Refer to: Figure 24

EBMUD Water Treatment and Transmission Improvements Program . 204369

SOURCE: Environmental Vision

Figure 30

Visual Simulation with Landscaping -
Happy Valley Pumping Plant Alternative Site from Camino Sobrante

Noise

Development of the Happy Valley Pumping Plant Alternative site would locate the pumping plant and transformer approximately 50 feet from the existing home to the north and 150 feet from the existing home to the south. At such proximities, noise levels associated with construction and operation of a pumping plant at the alternative site would be similar to those described for the DEIR Proposed site for the closest residences to the east and west (see DEIR pp. 3.10-25 and 3.10-46).

Noise measurements taken at the alternative site[1] confirm that the magnitude of noise impacts at the Happy Valley Pumping Plant Alternative Site would be less than at the DEIR Proposed site (and mitigable) because ambient noise is higher and there would be fewer receptors near the noise sources at the plant (the vent and transformer). The measurement taken at the alternative site for existing noise levels would be 54 CNEL, which is 2 dB higher than the measurement taken at the DEIR Proposed site (52 CNEL).

Like at the DEIR Proposed site, noise impacts at the alternative site also would be considered less than significant with mitigation. The same construction-related noise controls and operational design measures (orienting vents away from the residences to the north and south) would be required (see discussion in Table 6-5 of the DEIR). However, there appear to be fewer residential receptors close to the alternative site, and ambient noise levels are likely to be slightly higher than at the DEIR Proposed site due to traffic on Miner Road. At the alternative site, this would provide more options for locating vents away from sensitive receptors, and there would be fewer receptors potentially affected by the location of pumping plant vents or openings.

1 Noise measurements were taken at the Happy Valley Pumping Plant Alternative site in November, 2006.

TABLE 3-4
COMPARISON OF DEIR PROPOSED HAPPY VALLEY PUMPING PLANT AND PIPELINE PROJECT WITH DEIR ALTERNATIVE SITE

Impacts	DEIR Proposed Happy Valley Pumping site	Happy Valley Pumping Plant Alternative site	Discussion	Mitigation Measures (as Revised in this Response to Comments document)
Land Use, Planning, and Recreation				
Divide an Established Community	LTS	LTS=	Like the proposed site, the alternative site would not divide an established community or affect agricultural resources. (Construction activities would be noticeable at the golf course across Miner Road.)	None Required
Agricultural Resources Impacts	--	--		
Recreation Resources Impacts	LTS	LTS=		
Visual Quality				
Short-Term Visual Effects during Construction	LTS	LTS+	See Text in Section 3.4.3.	
Alteration of Appearance of WTTIP Sites	SM	SM+		
Effects on Views	SM	SM+		
Effects on Scenic Vistas	LST	LTS=		
New Sources of Light and Glare	SM	SM=		
Geology, Soils, and Seismicity				
Slope Stability	SM	SM=	Like the proposed site, Lauterwasser Creek traverses the parcel and a drainage abuts the parcel to the west. The topography is nearly level at the proposed plant location and steepens considerably toward the creek. Like the proposed site, the alternative site contains lowland soils. Slope stability, groundshaking, liquefaction and soils impacts would similar under this alternative as for the proposed site.	Implement Measure 3.4-1, DEIR p. 3.4-25
Groundshaking	SM	SM=		Implement Measure 3.4-2, DEIR p. 3.4-27
Expansive Soils	SM	SM=		Implement Measures 3.4-3a and 3.4-3b, DEIR p. 3.4-27
Liquefaction	SM	SM=		Implement Measure 3.4-4, DEIR p. 3.4-32
Squeezing Ground	--	--		

[a] Impacts summarized; please see DEIR Chapter 3 for details.

LTS = Less Than Significant
SM = Significant and Mitigable
SU = Significant and Unavoidable
-- = Impact does not apply
CBD = Cannot Be Determined

\+ Impact would be greater under this alternative than under the proposed project.
– Impact would be less under this alternative than under the proposed project.
= Impact would be the same (or similar) under this alternative as under the proposed project.

TABLE 3-4 (Continued)
COMPARISON OF DEIR PROPOSED HAPPY VALLEY PUMPING PLANT AND PIPELINE PROJECT WITH DEIR ALTERNATIVE SITE

Impacts	DEIR Proposed Happy Valley Pumping site	Happy Valley Pumping Plant Alternative site	Discussion	Mitigation Measures (as Revised in this Response to Comments document)
Hydrology and Water Quality				
Degradation of Water Quality during Construction	SM	SM=	Hydrology and water quality issues would be similar under the proposed project and this alternative because both sites are bordered by creeks, would require similar excavation and construction, and would result in a similar net change in impervious surfaces.	Implement Measures 3.5-1a and 3.5-1b, DEIR p. 3.5-31
Groundwater Dewatering	LTS	LTS=		
Diversion of Flood Flows	SM	SM=		
Discharge of Chloraminated Water during Construction	--	--		
Operational Discharge of Chloraminated Water	--	LTS=		
Change in Impervious Surfaces	LTS	LTS=		Implement Measure 3.5-6, DEIR p. 3.5-46
Biological Resources				
Loss of or Damage to Protected Trees	SM	SM-	See Text in Section 3.4.3.	Implement Measures 3.6-1a through 3.5-1e, DEIR p. 3.6-33
Degradation to Streams, Wetlands, and Riparian Habitats	SM	SM=		Implement Measures 3.6-2a through 3.5-2f, DEIR p. 3.6-40
Loss of or Damage to Special-Status Plants	SM	SM-		Implement Measures 3.6-3a through 3.5-3c, DEIR p. 3.6-42
Disturbance to Special-Status Birds	SM	SM-		Implement Measures 3.6-4a through 3.5-4c, DEIR p. 3.6-49 Implement Measure 3.6-5, DEIR p. 3.6-55
Disturbance to Special-Status Bats	SM	SM-		Implement Measure 3.6-6, DEIR p. 3.6-58
Disturbance to San Francisco Dusky-Footed Woodrat	SM	SM-		Implement Measures 3.6-7a through 3.5-7c, DEIR p. 3.6-63
Degradation of Special-Status Aquatic Species Habitat	SM	SM		
Disruption to Wildlife Corridors	LTS	LTS-		

[a] Impacts summarized; please see DEIR Chapter 3 for details.

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TABLE 3-4 (Continued)
COMPARISON OF DEIR PROPOSED HAPPY VALLEY PUMPING PLANT AND PIPELINE PROJECT WITH DEIR ALTERNATIVE SITE

Impacts	DEIR Proposed Happy Valley Pumping site	Happy Valley Pumping Plant Alternative site	Discussion	Mitigation Measures (as Revised in this Response to Comments document)
Cultural Resources				
Archaeological Resources, including Unrecorded Cultural Resources	SM	SM=	There are no structures and no known cultural resources at the alternative site. Like the proposed project, this alternative could result in the discovery of unrecorded resources.	Implement Measures 3.7-1a and 3.7-1b, DEIR p. 3.7-24
Paleontological Resources	SM	SM=		Implement Measure 3.7-2, DEIR p. 3.7-26
Historic Settings	--	--		
Traffic and Circulation				
Increased Traffic	SM	SM-	The estimated maximum number of one-way trips per day would be the same for the alternative site and the proposed site (because it is based on truck capacity and the rate at which trucks can be filled during the peak construction phase: excavation). There would be less truck traffic on Lombardy Lane east of the alternative site. Traffic safety and parking issues would be incrementally greater because the alternative site is smaller than the proposed site (1.6 acres versus 1.9 acres), has less room for construction staging, and is adjacent to a road that receives more traffic. Impacts to roadway width and transit are related to pipeline construction (which would be the same under the alternative and the project).	Implement Measure 3.8-1, DEIR p. 3.8-13
Reduced Road Width	SM	SM=		
Parking	SM	SM+		
Traffic Safety	SM	SM+		
Access	SM	SM=		
Transit	SU	SU=		
Pavement Damage/Wear	SM	SM-		Implement Measure 3.8-7, DEIR p. 3.8-23
Air Quality				
Construction Emission	SM	SM-	The haul route for the alternative site would be shorter than for the proposed project, and therefore construction emissions would be incrementally less, and receptors would be exposed to less diesel particulate. Excavation quantities would be similar.	Implement Measures 3.9-1a through 3.9-1c, DEIR p. 3.9-24
Diesel Particulate Emissions along Haul Routes	LTS	LTS-		
Tunnel-Related Emissions	--	--		
Operational Pollutant Emissions at Treatment Facilities	--	--		
Operational Odor Emissions	LTS	LTS=		
Secondary Emissions from Electricity Generation	LTS	LTS=		

[a] Impacts summarized; please see DEIR Chapter 3 for details.

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TABLE 3-4 (Continued)
COMPARISON OF DEIR PROPOSED HAPPY VALLEY PUMPING PLANT AND PIPELINE PROJECT WITH DEIR ALTERNATIVE SITE

Impacts	DEIR Proposed Happy Valley Pumping site	Happy Valley Pumping Plant Alternative site	Discussion	Mitigation Measures (as Revised in this Response to Comments document)
Noise and Vibration				
Construction Noise Increases	SM	SM=	See text in Section 3.4.3	Implement Measures 3.10-1a, 3.10-1b and 3.10-1e, DEIR p. 3.10-30
Noise Increases along Haul Routes	LTS	LTS-		
Construction-Related Vibration Effects	LTS	LTS-		
Operational Noise Increases	SM	SM=		
Hazards and Hazardous Materials				
Hazardous Materials in Soil and Groundwater	SM	SM=	There are no structures and no known contamination at the alternative site. The alignment for the Happy Valley Pipeline would be the same under the alternative (and is proximate to a high-priority utility). Hazards and hazardous materials impacts would be the same as for the proposed project.	Implement Measure 3.11-1, DEIR p. 3.11-27
Hazardous Building Materials	--	--		
Gassy Conditions in Tunnels	--	--		
High-Pressure Gas Line Rupture	SM	SM=		
Wildland Fires	LTS	LTS=		
Release from Construction Equipment	LTS	LTS=		
Accidental Release during Operation	--	--		
Public Services and Utilities				
Disruption of Utility Lines	SM	SM=	Impacts would be similar to the proposed project.	Implement Measures 3.12-1a through 3.9-1h, DEIR p. 3.12-16
Increase in Electricity Demand	LTS	LTS=		
Increase in Public Services Demand	LTS	LTS=		
Adverse Effect on Landfill Capacity	SM	SM=		Implement Measures 3.12-4a and 3.12-4b, DEIR p. 3.12-20
Failure to Achieve State Diversion Mandates	SM	SM=		

[a] Impacts summarized; please see DEIR Chapter 3 for details.

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