

3.12 Public Services and Utilities

3.12.1 Approach to Analysis

This section addresses potential impacts to public services and utilities from implementation of the WTTIP projects. This analysis is based on a review of available planning documents for the study area, discussions with District personnel, and site reconnaissance of the various WTTIP project sites. Public utilities in the project area include water, wastewater, electrical, and natural gas conveyance facilities. Public services include solid waste disposal, schools, hospitals, police, and fire protection. In general, implementation of the WTTIP projects would not have direct¹ long-term effects on the demand for public services and utilities, with the exception of water service (the WTTIP would improve water service) and energy. Long-term energy use would increase as needed to power new pumping plants and water treatment plant operations. However, short-term disruption to utilities as well as interference with fire and emergency services could occur during construction of the project components. See Section 3.2, Land Use, Planning, and Recreation regarding potential impacts to parks and other recreation facilities; Section 3.8, Traffic and Circulation, for information regarding potential disruption of access for public services such as emergency service providers and schools; and Section 3.11, Hazards and Hazardous Materials, for a discussion of potential public health and safety issues related to utility conflicts.

3.12.2 Setting

WTTIP projects are located in Orinda, Lafayette, Walnut Creek, Moraga, and Oakland, as well as portions of unincorporated Contra Costa County. Table 3.12-1 shows public utility service providers in the WTTIP project area.

Water Supply

As discussed in Chapter 2, Project Description, the District provides water service to much of the East Bay. Since water supply service is the subject of the WTTIP and this EIR, detailed information regarding overall water service can be found in Chapter 2.

Wastewater

Central Contra Costa Sanitary District (CCCSD) and EBMUD provide wastewater collection service to the Lamorinda/Walnut Creek area and Oakland. CCCSD collects and cleans an average of 45 million gallons per day (mgd) of wastewater for approximately 440,000 residents and businesses in central Contra Costa County (CCCSD, 2005). The CCCSD's service area encompasses approximately 126 square miles, from Martinez to parts of San Ramon, from Moraga to Clayton, and includes the WTTIP study area. The CCCSD's Collection System Operations Division is based in Walnut Creek. EBMUD treats domestic, commercial, and industrial wastewater for approximately 640,000 people in an 83-square-mile area, including the

¹ Chapter 4 of this EIR evaluates the potential for implementation of the WTTIP to induce growth and contribute to *indirect*, secondary impacts, including an increased demand for public services and utilities (other than water).

**TABLE 3.12-1
UTILITY AND SERVICE PROVIDERS IN WTTIP PROJECT AREAS**

City/County	Sewers	Electricity/Gas	Telephone	Police	Fire	Ambulance
City of Lafayette	CCCSD	PG&E	AT&T	City, County, CHP	CCCFPD	Various
City of Orinda	CCCSD	PG&E	AT&T	City	MOFD	Various
City of Walnut Creek	CCCSD	PG&E	AT&T	City, CHP	CCCFPD	Various
Town of Moraga	CCCSD	PG&E	AT&T	City	MOFD	Various
City of Oakland	City, EBMUD	PG&E	Various	City, CHP	City	Various
Contra Costa County	CCCSD	PG&E	Various	County, CHP	CCCFPD	Various

CCCSD = Central Contra Costa Sanitary District
 PG&E = Pacific Gas and Electric Company
 MOFD = Moraga-Orinda Fire District
 CCCFPD = Contra Costa County Fire Protection District
 CHP = California Highway Patrol

SOURCE: City of Lafayette, 2005; City of Orinda, 2005; City of Walnut Creek, 2005; Town of Moraga, 2005; City of Oakland, 2005; Contra Costa County, 2005; CCCSD, 2005

City of Oakland. The communities served by the wastewater system operate sewer collection systems that discharge into one of five EBMUD intercepting sewers. Wastewater collected by the interceptors' flows to EBMUD's wastewater treatment plant in Oakland. The average annual flow into the plant is approximately 80 mgd (EBMUD, 2005).

Police

The Contra Costa County Sheriff's Department provides nontraffic-related law enforcement and police protection services for all unincorporated areas in the county, and contracts its services to some incorporated cities in the county. The sheriff's department also maintains mutual-aid agreements with police departments in the Lafayette, Orinda, Walnut Creek, and Moraga. As a part of these agreements the cities contract with the Contra Costa County Sheriff's Department for the provision of law enforcement services (Contra Costa County, 2005). The City of Oakland provides law enforcement services within its city boundaries. East Bay Regional Parks District police patrol recreation areas and work with the local city and county police and sheriff's departments as necessary for police protection. The California Highway Patrol is responsible for the enforcement of traffic-related offenses in the county's unincorporated areas and along Highway 24 and Interstate 680.

Fire Protection

Fire protection in the WTTIP area is provided by the Contra Costa County Fire Protection District. The Moraga-Orinda Fire District serves Moraga and Orinda. There are also reserve firefighters assigned to individual stations throughout the Fire Protection District (Contra Costa County, 2005). Oakland is served by the Oakland Fire Department, which provides comprehensive emergency services within its boundaries. Stations employ emergency medical technicians, and paramedics are employed by local ambulance services.

Solid Waste Management

The Central Contra Costa Solid Waste Authority is a joint powers authority that franchises solid waste and recycling collection services in Lafayette, Moraga, Orinda, Walnut Creek, and surrounding unincorporated communities. Operating landfills in Contra Costa County include the Acme Landfill in Pacheco, which is restricted to receiving construction and demolition wastes and yard debris; Keller Canyon Landfill near Pittsburg; and West Contra Costa Sanitary Landfill in Richmond. Table 3.12-2 indicates the daily permitted capacity, the remaining capacity, and the estimated site life at the three operating landfills in Contra Costa County.

Schools and Preschools

Public elementary and middle school districts in the vicinity of the project sites include Lafayette Elementary, Orinda Union, Mt. Diablo, Moraga Elementary, Walnut Creek, and Oakland Unified. Public high schools in the vicinity of the project sites are part of the Acalanes Union School District. There are also numerous private, post-secondary, and preschool facilities in the vicinity of the project sites. The locations of these facilities are listed in Table 3.12-3.

Regulatory Setting

Appendix D identifies County and City general plan policies related to the provision of utilities and services. State policies related to energy and solid waste are described below.

2005 California Energy Action Plan II

The *California Energy Action Plan II* is the state's principal energy planning and policy document (California Energy Commission, 2005). The plan continues the goals of the original Energy Action Plan, describes a coordinated implementation plan for state energy policies, and identifies specific action areas to ensure that California's energy is adequate, affordable, technologically advanced, and environmentally sound. In accordance with this plan, the first priority actions to address California's increasing energy demands are energy efficiency and demand response (i.e., reduction of customer energy usage during peak periods in order to address system reliability and support the best use of energy infrastructure). Additional priorities include the use of renewable sources of power and distributed generation (i.e., the use of relatively small power plants near or at centers of high demand). To the extent that these actions are unable to satisfy the increasing energy and capacity needs, clean and efficient fossil-fired generation is supported.

The Energy Action Plan II includes the following energy efficiency action specific to water supply systems:

Identify opportunities and support programs to reduce electricity demand related to the water supply system during peak hours and opportunities to reduce the energy needed to operate water conveyance and treatment systems.

**TABLE 3.12-2
ESTIMATED REMAINING CAPACITY AND SITE LIFE FOR CONTRA COSTA COUNTY LANDFILLS**

Landfill	Remaining Capacity		Average TPD ^a	Tons Disposed 2004	Maximum Permitted TPD	Site Life in Years			Days of Operation per Year
	Cubic Yards	Tons				@ Average Daily	@ Maximum Daily	@ County Average ^b	
Keller Canyon Landfill ^c	62,453,590	36,223,082	2,468	804,848	3,500	47.0	33.2	36.1	312
Acme Landfill ^d	546,781	328,069	61	19,120	1,500	17.2	0.7	0.3	312
WCCSL ^e	1,156,800	636,240	833	302,949	2,500	2.1	0.7	0.6	360
TOTAL	64,157,171	37,187,391	3,363	1,126,917	7,500				

^a For each landfill, this figure represents the average of daily receipts for the years 2002, 2003 and 2004.

^b Projected annual average of 1,002,247 tons per year based on average reported annual disposed waste from all Contra Costa County jurisdictions for the period 2002 to 2004.

^c Remaining capacity as of January 1, 2005 based on an aerial survey conducted February 11, 2005, and adjusted back using average daily disposal for 2004. Tonnage figures are based on in-place density of 1,160 pounds per cubic yard.

^d Remaining capacity based on aerial survey conducted on January 31, 2004, and adjusted forward to January 1, 2005 using average daily disposal for 2004. Tonnage figures are based on in-place density of 1,200 pounds per cubic yard.

^e Remaining capacity as of January 1, 2005. Tonnage figures are based on in-place density of 1,100 pounds per cubic yard.

TPD = tons per day

WCCSL = West Contra Costa Sanitary Landfill

SOURCE: Contra Costa County, 2006.

**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	
CCCYPD Station 15	3338 Mt. Diablo Boulevard
CCCYPD Station 16	4007 Los Arabis Drive
CCCYPD 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 School	19 Altarinda Road
Springs Academy	89 Moraga Way
Glorietta Elementary School	15 Martha Road
Orinda Intermediate School	80 Ivy Drive
El Ray Elementary School	25 El Camino Moraga
Miramonte High School	750 Moraga Way
Sleepy Hollow Elementary School	20 Washington Lane
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

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	
CCCYPD Station 1	1330 Civic Drive
CCCYPD Station 3	1520 Rossmoor Parkway
CCCYPD Station 4	700 Hawthorne Drive
CCCYPD 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	
CCCYPD Station 69	4640 Appian Way

SOURCE: California Department of Education, 2006; East Bay Preschool Directory, 2006; Contra Costa County, 2005.

In 2002, California established its Renewable Portfolio Standard program,² with the goal of increasing the percentage of renewable energy in the state's electricity mix to 20 percent by 2017. The California Energy Commission subsequently accelerated that goal to 2010, and further recommended increasing the target to 33 percent by 2020. Because much of electricity demand growth is expected to be met by increases in natural-gas-fired generation, reducing consumption of electricity and diversifying electricity generation resources are significant elements of plans to reduce natural gas demand.

California Integrated Waste Management Act of 1989

The California Integrated Waste Management Act of 1989 (Public Resources Code [PRC], Division 30), enacted through Assembly Bill (AB) 939 and modified by subsequent legislation, required all California cities and counties to implement programs to reduce, recycle, and compost at least 50 percent of wastes by the year 2000 (PRC Section 41780). The state determines compliance with this mandate to “divert” 50 percent of generated waste (which includes both disposed and diverted waste) through a complex formula. This formula requires cities and counties to conduct empirical studies to establish a “base year” waste generation rate against which future diversion is measured. The actual determination of the diversion rate in subsequent years is arrived at through deduction, not direct measurement: instead of counting the amount of material recycled and composted, the city or county tracks the amount of material disposed at landfills, then subtracts the disposed amount from the base year amount. The difference is assumed to be diverted (PRC Section 41780.2).

Local Setting

Streets and trails throughout the project area also function as underground utility corridors, the location of which must be taken into consideration when siting and installing water pipelines. District staff identified existing utilities within streets that would be affected by pipeline construction using maps provided by other agencies and EBMUD as-built drawings. Table 3.12-4 identifies existing underground utilities located within the alignments of proposed WTTIP pipelines (or at other WTTIP project sites) evaluated at a project-level of detail. The pipeline alignments were also inspected for any physical markers indicating the presence of utilities.

For purposes of analysis, this EIR uses the California Department of Transportation (Caltrans) uses policies in the *Caltrans Project Development Procedures Manual* (Caltrans, 1999) to identify “high priority” utilities that would pose a greater risk to workers and the public should an accident occur during construction, and which therefore warrant special consideration. Pursuant to the policy, high priority utilities include pipelines carrying petroleum products, oxygen, chlorine, toxic or flammable gases; natural gas in pipelines greater than 6 inches nominal pipe diameter or with normal operating pressures greater than 60 pounds per square inch gauge; and

² The Renewable Portfolio Standard is a flexible, market-driven policy to ensure that the public benefits of wind, solar, biomass, and geothermal energy continue to be realized as electricity markets become more competitive. The policy ensures that a minimum amount of renewable energy is included in the portfolio of electricity resources serving a state or country. By increasing the required minimum amount over time, the Renewable Portfolio Standard puts the electricity industry on a path toward increasing sustainability.

**TABLE 3.12-4
EXISTING UNDERGROUND UTILITIES LOCATED WITHIN PROJECT-LEVEL PIPELINE ALIGNMENTS^a**

Facility	Street	Roadway Segment	Utility	Diameter (inches)
Orinda-Lafayette Aqueduct (Alternative 2 only)	El Nido Ranch Road	St. Stephens Drive to Lizann Drive	Water	20, 8
			Sewer	12
	El Nido Ranch Road	Lizann Drive to Acalanes Road	Natural Gas	6
			Storm Drain	18
			Water	20
El Nido Ranch Road	Acalanes Road to Upper Happy Valley Road	Sewer	12	
		Natural Gas	6	
El Nido Ranch Road	Upper Happy Valley Road to just west of Sunnybrook Drive	Storm Drain	18	
		Water	12, 8	
Mt. Diablo Boulevard	Oakland Athletic Club to Lafayette Reservoir Recreation Area entrance	Sewer	30	
		Natural Gas	6 (over 60 psi)	
Fay Hill Pumping Plant and Pipeline Improvements	Moraga Road	Fay Hill Pumping Plant inlet line to Moraga Road	Storm Drain	18
			Water	No
Fay Hill Pumping Plant and Pipeline Improvements	Rheem Boulevard	East of Moraga Road to Chalda Way	Sewer	30
			Natural Gas	6 (over 60 psi)
Fay Hill Pumping Plant and Pipeline Improvements	Moraga Road	Fay Hill Pumping Plant inlet line to Moraga Road	Storm Drain	18
			Water	No
Fay Hill Pumping Plant and Pipeline Improvements	Rheem Boulevard	East of Moraga Road to Chalda Way	Sewer	30
			Natural Gas	6 (over 60 psi)
Fay Hill Pumping Plant and Pipeline Improvements	Moraga Road	Fay Hill Pumping Plant inlet line to Moraga Road	Storm Drain	18
			Water	No
Glen Pipeline Improvements	Nordstrom Lane/Glen Road	Hilltop Drive to Monticello Road	Sewer	30
			Natural Gas ^b	6 (over 60 psi)
Glen Pipeline Improvements	Nordstrom Lane/Glen Road	Hilltop Drive to Monticello Road	Storm Drain	18
			Water	No
Happy Valley Pumping Plant and Pipeline	Miner Road	Oak Arbor to Lombardy Lane	Sewer	30
			Natural Gas ^b	6 (over 60 psi)
Happy Valley Pumping Plant and Pipeline	Lombardy Lane	Miner Road to Sleepy Hollow	Storm Drain	18
			Water	No
Happy Valley Pumping Plant and Pipeline (cont.)	Lombardy Lane	Sleepy Hollow to Van Ripper Lane	Sewer	30
			Natural Gas	6 (over 60 psi)
Happy Valley Pumping Plant and Pipeline (cont.)	Lombardy Lane	Van Ripper Lane to proposed Happy Valley Pumping Plant	Storm Drain	18
			Water	No
Leland Isolation Pipeline and Bypass Valves	Lacassie Drive	North California Street to North Main Street	Sewer	30
			Natural Gas ^b	6 (over 60 psi)
Leland Isolation Pipeline and Bypass Valves	Lacassie Drive	North California Street to North Main Street	Electric	Yes
			Storm Drain	48

TABLE 3.12-4 (Continued)
EXISTING UNDERGROUND UTILITIES LOCATED WITHIN PROJECT-LEVEL PIPELINE ALIGNMENTS^a

Facility	Street	Roadway Segment	Utility	Diameter (inches)
Leland Isolation Pipeline and Bypass Valves (cont.)	Danville Boulevard	Near Rudgear Road	Water Sewer Natural Gas Storm Drain Petroleum ^b	69, 60, 48, 24, 10 60, 36 2,4 Unknown 10
Moraga Road Pipeline	Mt. Diablo Boulevard	Lafayette WTP to Lafayette Reservoir Recreation Area	Water Sewer Natural Gas ^b Storm Drain	48,24 30 4, 8 (over 60 psi) None
	Over Lafayette Reservoir property	Mt. Diablo Boulevard to Moraga Road	Water Sewer Natural Gas Storm Drain	12, 36 15 None None
	Moraga Road	Nemea Court to Sky-Hy Drive	Water Sewer Natural Gas Storm Drain	8, 12, 36 8 3 15
	Moraga Road	Sky-Hy Drive to Rheem Boulevard	Water Sewer Natural Gas Storm Drain	12, 12, 36 15 4 12, 18, 24
	Moraga Road	Rheem Boulevard	Water Sewer Natural Gas Storm Drain Communication Electric	12, 12, 36 Unknown 4 27 Yes Yes
	Moraga Road	Rheem Boulevard to Draeger Drive	Water Sewer Natural Gas Storm Drain Communication Electric	12, 12, 36 Unknown 4 12 to 58x36 Yes Yes
Highland Reservoir and Pipelines	Within Lafayette WTP	Connection point for Colorados Pressure Zone to Mt. Diablo Boulevard	Water Sewer Natural Gas Storm Drain	30 None 4 None
	Mt. Diablo Boulevard	Lafayette WTP to Lafayette Reservoir Recreation Area	Water Sewer Natural Gas ^b Storm Drain	24, 48 30 8 (over 60 psi) None
Highland Reservoir and Pipelines (cont.)	Access road	Across access road	Water Sewer Natural Gas Storm Drain	None 15 None None
	Over Lafayette Reservoir property	Access road to reservoir site	Water Sewer Natural Gas ^b Storm Drain Telephone	24, 8 None 6 (over 60 psi) None Yes
Lafayette Reclaimed Water Pipeline	Within Lafayette WTP	Gravity thickener tank to Mt. Diablo Boulevard	Water Sewer Natural Gas Storm Drain	None 15 None None

TABLE 3.12-4 (Continued)
EXISTING UNDERGROUND UTILITIES LOCATED WITHIN PROJECT-LEVEL PIPELINE ALIGNMENTS^a

Facility	Street	Roadway Segment	Utility	Diameter (inches)
Lafayette Reclaimed Water Pipeline (cont.)	Mt. Diablo Boulevard	Lafayette WTP to Lafayette Reservoir Recreation Area	Water Sewer Natural Gas ^b Storm Drain	None 30 6 (over 60 psi) None
	Access road	Across access road	Water Sewer Natural Gas Storm Drain	None 15 None None
	Over Lafayette Reservoir property	Access road to Lafayette Reservoir	Water Sewer Natural Gas ^b Storm Drain Telephone	24, 8 None 6 (over 60 psi) None Yes
Sunnyside Pumping Plant	Happy Valley Road	Happy Valley Road near Sundown Terrace	Water Sewer Natural Gas ^b Storm Drain Electric	12, 12 8 6 (over 60 psi), 4 Unknown Yes
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	8, 12, 20 24, 45 4, 12, 16 (over 60 psi) 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.

underground electric supply lines, conductors, or cables that have a potential to ground of more than 300 volts that do not have effectively grounded sheaths (Caltrans, 1999). Table 3.12-4 indicates known high priority utilities near proposed WTTIP facility locations.

During design, the existing utilities will be located again and identified with greater precision (e.g., shown on the 100 percent design drawings). Due to the nature of underground construction, the exact location of underground 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 California Occupational Safety and Health Administration (Cal/OSHA) Construction Safety Orders. Utilities Service Alert, which provides utility location services, is not available until the time of construction.

3.12.3 Impacts and Mitigation Measures

Significance Criteria

For the purposes of this EIR and consistent with Appendix G of the CEQA Guidelines, a WTTIP project is considered to have a significant impact if it would:

- Substantially interfere with or change the demand for utilities;
- Interfere with or substantially change the demand for government services such as schools, hospitals, or police and fire protection, or require alteration of these services;
- Exceed the disposal capacity of local landfills or cause wasteful, inefficient, or unnecessary consumption of energy; or
- Impair or prevent a city or county from complying with the waste diversion mandates of the California Integrated Waste Management Act of 1989.

Refer to Chapter 4 regarding the potential for the WTTIP to induce growth and contribute to indirect, secondary impacts, including increased demand for public services and utilities (other than water). Refer to Section 3.8, Traffic and Circulation, regarding potential disruption of access to land uses (including schools) adjacent to pipeline construction projects.

Impacts and Mitigation Measures

Table 3.12-5 indicates public services and utilities impacts by project facility. Table 3.12-6 identifies applicable mitigation measures for individual WTTIP projects.

Impact 3.12-1: Potential damage to or interference with existing public utilities.

Construction activities for the proposed WTTIP projects could result in damage to or interference with existing water, sewer, storm drain, natural gas, oil, electric, and/or communication lines and, in some cases, could require that existing lines be permanently relocated, potentially causing interruption in service. Numerous utility lines of varying sizes are located along and across proposed pipeline alignments (see Table 3.12-4); within the Lafayette, Orinda, Walnut Creek, Sobrante, and Upper San Leandro WTPs; and at the various pumping plants and reservoir sites. Streets and trails function as utility corridors within the project area, which creates a greater potential for interference with other existing utilities. The focus of this discussion is on pipeline construction projects proposed as part of the WTTIP. If the specific locations of underground utilities are not located prior to construction, the utility lines could be damaged and the associated services interrupted.

In most cases, service disruptions would be temporary and would not exceed one day. All utility lines and cables that would be disrupted during pipe installation could be identified during preliminary design. As a condition of approval for either a utility excavation permit or an encroachment permit, the District would prepare a detailed engineering and construction plan

**TABLE 3.12-5
SUMMARY OF POTENTIAL PROJECT-LEVEL PUBLIC SERVICES AND UTILITIES IMPACTS**

Facility	Impact 3.12-1	Impact 3.12-2	Impact 3.12-3	Impact 3.12-4	Impact 3.12-5
	Disruption of Utility Lines	Increase in Electricity Demand	Increase in Public Services Demand	Adverse Effect on Landfill Capacity	Failure to Achieve State Diversion Mandates
Lafayette WTP					
<i>Alternative 1</i>	SM	LTS	LTS	SM	SM
<i>Alternative 2</i>	SM	LTS	LTS	–	SM
Orinda WTP					
<i>Alternative 1</i>	SM	LTS	LTS	SM	SM
<i>Alternative 2</i>	SM	LTS	LTS	SM	SM
Walnut Creek WTP					
<i>Alternative 1 or 2</i>	SM	LTS	LTS	SM	SM
Sobrante WTP					
<i>Alternative 1 or 2</i>	SM	LTS	LTS	SM	SM
Upper San Leandro WTP					
<i>Alternative 1 or 2</i>	SM	LTS	LTS	SM	SM
Orinda-Lafayette Aqueduct					
<i>Alternative 2</i>	SM	LTS	LTS	SM	SM
Ardith Reservoir and Donald Pumping Plant	SM	LTS	LTS	SM	SM
Fay Hill Pumping Plant and Pipeline Improvements	SM	LTS	LTS	SM	SM
Fay Hill Reservoir	SM	LTS	LTS	SM	SM
Glen Pipeline Improvements	SM	LTS	LTS	SM	SM
Happy Valley Pumping Plant and Pipeline	SM	LTS	LTS	SM	SM
Highland Reservoir and Pipelines	SM	LTS	LTS	SM	SM
Lafayette Reclaimed Water Pipeline	SM	LTS	LTS	SM	SM
Leland Isolation Pipeline and Bypass Valves	SM	LTS	LTS	LTS	SM
Moraga Reservoir	SM	LTS	LTS	SM	SM
Moraga Road Pipeline	SM	LTS	LTS	SM	SM
Sunnyside Pumping Plant	SM	LTS	LTS	–	–
Tice Pumping Plant and Pipeline	SM	LTS	LTS	SM	SM
Withers Pumping Plant	SM	LTS	LTS	SM	SM

SM = Significant Impact, Can Be Mitigated

SU = Significant Impact, Unavoidable

LTS = Less-Than-Significant Impact

TBD = To Be Determined

– = No Impact

**TABLE 3.12-6
SUMMARY OF APPLICABLE MITIGATION MEASURES – IMPACT 3.12-1 AND 3.12-4**

Facility	Measures 3.12-1a through 3.12-1g	Measures 3.12-4a and 3.12-4b
	Identifying Utility Lines during Construction	Solid Waste Recycling and Reuse
Lafayette WTP <i>Alternative 1</i>	✓	✓
<i>Alternative 2</i>	✓	–
Orinda WTP <i>Alternative 1</i>	✓	✓
<i>Alternative 2</i>	✓	✓
Orinda-Lafayette Aqueduct <i>Alternative 2</i>	✓	✓
Walnut Creek WTP <i>Alternative 1 or 2</i>	✓	✓
Sobrante WTP <i>Alternative 1 or 2</i>	✓	✓
Upper San Leandro WTP <i>Alternative 1 or 2</i>	✓	✓
Ardith Reservoir and Donald Pumping Plant	✓	✓
Fay Hill Pumping Plant and Pipeline Improvements	✓	✓
Fay Hill Reservoir	✓	✓
Glen Pipeline Improvements	✓	✓
Happy Valley Pumping Plant and Pipeline	✓	✓
Highland Reservoir and Pipelines	✓	✓
Lafayette Reclaimed Water Pipeline	✓	✓
Leland Isolation Pipeline and Bypass Valves	✓	✓
Moraga Reservoir	✓	✓
Moraga Road Pipeline	✓	✓
Sunnyside Pumping Plant	✓	–
Tice Pumping Plant and Pipeline	✓	✓
Withers Pumping Plant	✓	✓

✓ = Applicable Impact
– = No Impact

that thoroughly describes construction techniques and protective measures for minimizing impacts to utilities.

Construction of facilities at any of the WTPs would not interrupt water supply service to the corresponding service areas because water service during any planned outages could be provided on a temporary basis from existing distribution storage. With the exception of planned outages to connect facilities to power, the WTPs would remain online during the construction of proposed improvements. The expected duration of the planned outages would be 12 hours during the summer and 24 hours during the winter. The level of service during a planned outage would remain unchanged.

With implementation of Measures 3.12-1a through 3.12-1h (requiring utility-locating safety practices prior to and during construction), impacts related to potential damage to or interference with public utilities would be less than significant.

Orinda-Lafayette Aqueduct

The Orinda-Lafayette Aqueduct would run along El Nido Ranch Road to Mt. Diablo Boulevard. Utility lines carrying water, sewage, natural gas, and storm drain runoff are located along the pipeline alignment. The natural gas line along Mt. Diablo Boulevard is considered to be high priority (see Table 3.12-4 for location, utility type, and diameter information).

Fay Hill Pumping Plant and Pipeline Improvements

The Fay Hill Pumping Plant and Pipeline Improvements include an inlet line to Moraga Road from the Fay Hill Pumping Plant. As part of the proposed pumping plant improvements, an onsite PG&E transformer would be relocated. Pipeline improvements are proposed along Rheem Boulevard beginning east of Moraga Road and ending at Chalda Way. Utility lines carrying water, sewage, natural gas, and storm drain runoff are located along the pipeline alignment (see Table 3.12-4 for location, utility type, and diameter information).

Glen Pipeline Improvements

The proposed Glen Pipeline Improvements would be installed along Nordstrom Lane/Glen Road from Hilltop Drive to Monticello Road. Utility lines carrying water, sewage, natural gas, and storm drain runoff electricity are located along the pipeline alignment (see Table 3.12-4 for location, utility type, and diameter information).

Happy Valley Pumping Plant and Pipeline

The proposed Happy Valley Pipeline improvements would be constructed along Miner Road and Lombardy Lane. The Happy Valley Pumping Plant would include a new transformer and PG&E underground cable connecting to an existing PG&E power pole. Utility lines carrying water, sewage, natural gas, storm drain runoff, communication, and electricity are located along the pipeline alignment. The natural gas lines along the entire proposed pipeline alignment are considered to be high priority (see Table 3.12-4 for location, utility type, and diameter information).

Highland Reservoir and Pipelines

The proposed Highland Pipeline would be located at the Lafayette WTP. It would cross Mt. Diablo Boulevard between the Lafayette WTP and Lafayette Reservoir Recreation Area, and continue along an access road over Lafayette Reservoir property to the reservoir site. Utility lines carrying water, sewage, natural gas, storm drain runoff, and telephone services are located along the pipeline alignment. The natural gas lines along sections of the proposed pipeline alignment are considered to be high priority. The proposed limit of construction for Highland Reservoir is adjacent to existing telephone vaults and buried gas lines (see Table 3.12-4 for location, utility type, and diameter information).

Lafayette Reclaimed Water Pipeline

For the most part, the proposed Lafayette Reclaimed Water Pipeline would be constructed in the same trench as the proposed Highland Pipelines and therefore would have similar potential utility impacts. Additionally, Lafayette Reclaimed Water Pipeline facilities would require electrical power to be extended to the treatment area for the UV reactor and pumps (see Table 3.12-4 for location, utility type, and diameter information).

Leland Isolation Pipeline and Bypass Valves

The proposed Leland Isolation Pipeline and Bypass Valves would be located in Lacassie Drive between North California Street and North Main Street, in Danville Boulevard near Rudgear Road, and near the Danville Pumping Plant along the Iron Horse Trail. Utility lines carrying water, sewage, natural gas, storm drain runoff, and petroleum are located along the pipeline alignments. The petroleum line is considered to be high priority (see Table 3.12-4 for location, utility type, and diameter information).

Moraga Road Pipeline

The proposed improvements would be constructed from the Lafayette WTP, then across Mt. Diablo Boulevard and through the Lafayette Reservoir Recreation Area where the pipeline would run overland toward the southeast to Nemea Court. The pipeline would then extend southward to Moraga Road and then along Moraga Road from the intersection of Draeger Drive and Moraga Road. Utility lines carrying water, sewage, natural gas, and storm drain runoff are located along the pipeline alignment. The natural gas line along the Mt. Diablo Boulevard section of the proposed pipeline alignment is considered to be high priority (see Table 3.12-4 for location, utility type, and diameter information).

Sunnyside Pumping Plant and Pipeline

The proposed Sunnyside Pumping Plant and Pipeline facilities would be located along Happy Valley Road near Sundown Terrace. The project facilities include a new transformer and a PG&E underground utility line connecting to an existing electrical box and buried pipelines. Utility lines carrying water, sewage, natural gas, storm drain runoff, and electricity are located in the project vicinity. The nearby natural gas line is considered to be high priority (see Table 3.12-4 for location, utility type, and diameter information).

Tice Pumping Plant and Pipeline

The proposed Tice Pipeline alignment would travel along Olympic Boulevard from the proposed Tice Pumping Plant to Boulevard Way, continuing along Boulevard Way from Warren to Olympic Boulevard. Project facilities would require the relocation of a PG&E meter, a transformer, and an electrical pole on the proposed site. Utility lines carrying water, sewage, natural gas, and storm drain runoff are located in the project vicinity. The nearby natural gas line is considered to high priority (see Table 3.12-4 for location, utility type, and diameter information).

Withers Pumping Plant

The proposed Withers Pumping Plant project would involve the installation of a new transformer and a metering and switchgear cabinet onsite and would require the relocation of a PG&E electrical pole.

Mitigation Measures

Measure 3.12-1a: Prior to excavation, the District or its contractors will locate overhead and underground utility lines, such as natural gas, electricity, sewage, telephone, fuel, and water lines, that may reasonably be expected to be encountered during excavation work.

Measure 3.12-1b: The District or its contractors will find the exact location of underground utilities by safe and acceptable means, including the use of hand and modern techniques as well as customary types of equipment. Information regarding the size, color, and location of existing utilities must be confirmed before construction activities begin.

Measure 3.12-1c: The District or its contractors will confirm the specific location of all high priority utilities (i.e. pipelines carrying petroleum products, oxygen, chlorine, toxic or flammable gases; natural gas in pipelines greater than 6 inches in diameter, or with normal operating measures, greater than 60 pounds per square inch gauge; and underground electric supply lines, conductors, or cables that have a potential to ground more than 300 volts that do not have effectively grounded sheaths) and such locations will be highlighted on all construction drawings. In the contract specifications, the District will require that the contractor provide weekly updates on planned excavation for the upcoming week and identify when construction will occur near a high priority utility. On days when this work will occur, District construction managers will attend tailgate meetings with contractor staff to review all measures—those identified in the Mitigation Monitoring and Reporting Program and in the construction specifications—regarding such excavations. The contractor's designated health and safety officer will specify a safe distance to work near high-pressure gas lines, and excavation closer to the pipeline will not be authorized until the designated health and safety officer confirms and documents in the construction records that: (1) the line was appropriately located in the field by the utility owner using as-built drawings and a pipeline-locating device, and (2) the location was verified by hand by the construction contractor. The designated health and safety officer will provide written confirmation to the District that the line has been adequately located, and excavation will not start until this confirmation has been received by the District.

Measure 3.12-1d: While any excavation is open, the District or its contractors will protect, support, or remove underground utilities as necessary to safeguard employees.

Measure 3.12-1e: The District or its contractors will notify local fire departments any time damage to a gas utility results in a leak or suspected leak, or whenever damage to any utility results in a threat to public safety.

Measure 3.12-1f: The District or its contractors will contact utility owner if any damage occurs as a result of the project and promptly reconnect disconnected cables and lines with approval of owner.

Measure 3.12-1g: The District will observe Department of Health Services (DHS) standards, which require: (1) a 10-foot horizontal separation between parallel sewage and

water mains (gravity or force mains); (2) a 1-foot vertical separation between perpendicular water and sewage line crossings; and (3) encasement of sewage mains in protective sleeves where a new water line crosses under or over an existing wastewater main.

Measure 3.12-1h: The District or its contractors will coordinate final construction plans and specifications with affected utilities, such as PG&E.

Impact 3.12-2: Short-term and long-term increase in energy demand.

Construction of the WTTIP facilities would result in an irretrievable and irreversible commitment of natural resources through direct consumption of fossil fuels and use of materials. The proposed activities would require connections to existing power sources, which would increase the short-term use of electricity and refined petroleum products during the operation of construction equipment (primarily gas, diesel, and motor oil). Equipment manufacturers have made progress in addressing fuel efficiency during construction, including the development of fuel-efficient engines and equipment. This short-term increase in electricity demand would not be significant, and no mitigation is required.

Over the long term, increased consumption of electricity and nonrenewable resources would primarily occur at two types of facilities:

- *Pump Stations.* Much of the energy involved in municipal water systems is used for pumping. Approaches to conserving energy in the movement of water include using energy-efficient equipment and implementing concurrent repairs and maintenance of facilities to minimize power use. Scheduling pumps to operate as much as possible during off-peak energy demand periods, within system constraints, also reduces potential contributions to rolling blackouts.
- *Water Treatment Plants.* Water treatment facilities use energy to pump and process water. The amount of energy required for treatment depends on source-water quality, treatment methods used, and pumping requirements for the treated water. Energy requirements for treatment are typically small, and the bulk of the energy is used to pump treated water. Energy savings are being achieved by reducing the volume of treated water pumped (through water conservation), using energy-efficient treatment and pumping equipment, using effective instrumentation and controls, managing pumping operations, and implementing concurrent repairs and maintenance of facilities to minimize power use.

The proposed water treatment plant and pumping plant improvements would increase the demand for electricity in the long term. A preliminary study performed by PG&E in February 2006 indicates a need for additional electric distribution facilities under both Alternative 1 and Alternative 2 based on the 2005 Walnut Creek Load Growth Package (Chan, 2006).

The Lafayette WTP is on PG&E's Lakewood circuit and receives electricity from the Lakewood substations located at 838 Ygnacio Valley Road, Walnut Creek, approximately 7.5 miles from the Lafayette WTP. Under Alternative 1, electricity demand at the Lafayette WTP would increase by 2,349 kilowatts (Chan, 2006). 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.

The Orinda WTP is on PG&E's Sobrante 1103 circuit and receives electricity from the Sobrante substation located at 511 Bear Creek Road, Lafayette, approximately 1.4 miles from the Orinda WTP. Under Alternative 2, electricity demand at the Orinda WTP would increase by 6,339 kilowatts (Chan, 2006). PG&E has indicated that additional electric distribution facilities (new substation bank and circuit) could be required by 2012 at the Sobrante 1103 circuit due to increased demand at Orinda WTP.

Through its *Renewable Energy Facilitation Plan*, EBMUD has created a strategy to increase the use of renewable energy technologies within its service territory, with the aim of reducing the environmental impact of electricity use. The plan is based on three basic actions:

- Increased use of renewable-energy-based generating technologies at District facilities
- Purchase of offsite renewable energy generation through bilateral contracts, green tags (renewable energy certificates), or other contractual mechanisms
- Marketing and outreach to customers regarding the benefits of both EBMUD's use of renewable technologies and customer adoption of renewable energy technologies

EBMUD already operates two hydropower plants in the Sierra Nevada foothills and generates biogas-based electricity at its wastewater treatment facility. It has also implemented a 30-kilowatt solar photovoltaic project in Oakland. In addition to this existing stock of onsite renewable generation technologies, EBMUD is planning a 410-kilowatt solar photovoltaic system at the Sobrante WTP.

Although it is not currently doing so, EBMUD may be able to purchase renewable energy generation from offsite facilities. EBMUD may be able to purchase energy generated through green methodologies using bilateral generation contracts and/or green tags once a California regulatory framework is established (ICF Consulting, 2003).

EBMUD uses marketing and public outreach to help members of the community adopt and implement renewable energy strategies. Examples currently in use are bill inserts, the District's website, and other District publications that inform customers about water conservation, water efficiency, and other environmental accomplishments (ICF Consulting, 2003).

Consistent with the *California Energy Action Plan II* priorities for reducing energy usage and the *Renewable Energy Facilitation Plan*, the District would ensure that energy-efficient equipment is used for all WTTIP projects and would continue to time energy usage during nonpeak periods. Where possible, electricity for WTTIP projects would be supplied from a renewable energy resource, or an alternative renewable energy resource such as solar power. Therefore, the long-term increase in electricity demand would not be significant, and no mitigation is required.

Impact 3.12-3: Potential short-term increase in demand for police and fire services.

Construction of proposed facilities would generate truck and employee traffic along haul routes and at the proposed sites, temporarily increasing the accident potential in these areas. However, this increased potential for accidents would result in a limited, short-term demand for additional police or fire services, and only on an as-needed and emergency basis. This short-term increase in demand could be accommodated by existing resources within the project areas. In addition, construction of pipelines in or adjacent to roadways could result in partial or complete road closure and would impair local fire, police, or other emergency access during this period. Disruption of roadway access and increased accident potential could also occur in the event of a pipeline rupture or other emergency upset condition. Such an event could also temporarily increase demand for police and fire services as well as impair emergency access (see Section 3.8, Traffic and Circulation). The potential impact on the demand for police and fire services would be less than significant. To provide further protection, the District would implement Measures 3.12-1a through 3.12-1h (as well as traffic safety and access measures identified in Section 3.8). There would be no long-term increases in demand for police or fire services associated with the WTTIP projects. Improved security measures at the WTPs and pumping plants, such as security fencing, alarms, and controlled access, are proposed as part of the project. The potential for long-term increases in demand for police and fire services (associated with secondary impacts of growth due to implementation of the WTTIP projects) is discussed in Chapter 4 of this EIR. Table 3.12-5 indicates public service and utilities impacts by project facility.

Mitigation Measure

Measure 3.12-3: The District will implement Measures 3.12-1a through 3.12-1h.

Impact 3.12-4: Potential adverse effects on solid waste landfill capacity.

The California Integrated Waste Management Board found that the Lamorinda/Walnut Creek and Oakland jurisdictions achieved or nearly achieved the 50 percent solid waste diversion goal for the 2003/2004 year (California Integrated Waste Management Board, 2005). However, construction of WTTIP projects would result in the generation of a large volume of waste materials which, if the total amount were disposed of in local landfills, could exceed the daily tonnage limit of these landfills. These waste materials include construction and demolition materials and excavation spoils from the WTPs, pumping plants, and reservoirs, and trench and tunnel spoils from construction of transmission pipelines. The largest potential source of solid waste would be the excavated soil; some of this material would be stockpiled and reused as backfill. Table 3.12-7 indicates the estimated amount of excavated soils and demolition materials potentially requiring disposal for each of the WTTIP facilities. The total volume of excavated material would be up to approximately 230,000 cubic yards (cy) under Alternative 1 and approximately 376,000 cy under Alternative 2. This amount could have a significant impact on landfill capacity. To reduce this impact to a less-than-significant level, the District will implement Measures 12.3-4a and 12.3-4b.

**TABLE 3.12-7
ESTIMATE OF SOLID WASTE GENERATED BY WTTIP CONSTRUCTION ACTIVITIES**

Facility	Estimated Total Cubic Yards of Soil to be Disposed ^{a,b}	
	Alternative 1	Alternative 2
Lafayette WTP <i>Alternative 1</i>	99,660	800
Orinda WTP <i>Alternative 1</i>	12,550	–
<i>Alternative 2</i>	–	151,760
Walnut Creek WTP <i>Alternative 1 or 2</i>	4,100	4,100
Sobrante WTP <i>Alternative 1</i>	21,580	–
<i>Alternative 2</i>	–	28,460
Upper San Leandro WTP <i>Alternative 1 or 2</i>	1,510	1,510
Orinda-Lafayette Aqueduct	–	98,732
Ardith Reservoir	8,500	8,500
Donald Pumping Plant	700	700
Fay Hill Pumping Plant and Pipeline Improvements	230	230
Fay Hill Reservoir	8,400	8,400
Glen Pipeline Improvements	700	700
Happy Valley Pumping Plant and Pipeline	2660	2660
Highland Reservoir and Pipelines	20,420	20,420
Leland Isolation Pipeline and Bypass Valves	560	560
Moraga Reservoir	15,280	15,280
Moraga Road Pipeline	27,720	27,720
Highland Inlet/Outlet and Reclaimed Water Pipelines	1,380	1,380
Sunnyside Pumping Plant	0	0
Tice Pumping Plant and Pipeline	3,080	3,080
Withers Pumping Plant	520	520
Total Estimated Cubic Yards	229,550	375,512

^a Includes demolition material quantities.

^b Numbers rounded.

SOURCE: McGowan, 2006a; ESA, 2006.

Mitigation Measures

Measure 3.12-4a: The District will encourage 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 wastes produced through construction, demolition, and excavation activities.

Impact 3.12-5: Potential failure to achieve state-mandated solid waste diversion rates.

The WTTIP projects have the potential to create an estimated 230,000 cy of solid waste under Alternative 1 and 376,000 cy of solid waste under Alternative 2. This 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. To reduce this impact to a less-than-significant level, the District will implement Measures 3.12-4a and 3.12-4b.

Mitigation Measure

Measure 3.12-5: The District will implement Measures 3.12-4a and 3.12-4b.

Program-Level Elements

All program-level elements would result in a short-term energy consumption impact during construction and a potential temporary increase in the demand for police and fire services.

Lafayette WTP

Proposed future changes to the Lafayette WTP include high-rate solids removal and post-filtration UV disinfection for the entire WTP flow. Potential impacts caused by the disruption of existing utilities would be similar to those described above for the proposed project-level facilities. Measures similar to Measures 3.12-1a through 3.12-1h would likely be required and would lessen the impact. Proposed program improvements to the Lafayette WTP would involve providing treated water storage and constructing a low-lift pumping plant. These new facilities would require energy consumption during construction as well as operation. The potential impact to solid waste landfill capacities under this project would be minor due to the types of facilities being proposed.

Orinda WTP

Potential impacts caused by the disruption of existing utilities would be similar to those described above for the proposed project-level facilities. Measures similar to Measures 3.12-1a through 3.12-1h would likely be required and would lessen the impact. Proposed program improvements to the Orinda WTP would involve providing treated water storage and constructing pumping plants, a high rate sedimentation unit, and UV disinfection building. These new facilities would require energy consumption during construction as well as operation. This project could result in an impact to solid waste landfill capacities. A significant amount of earthmoving would be required to construct the proposed low-lift pumping plant, San Pablo Pumping Plant, chlorine contact basin, and clearwells. Measures similar to Measures 3.12-4a and 3.12-4b would likely be required and would lessen the impact.

Walnut Creek WTP

Proposed program facility improvements to the Walnut Creek WTP would involve providing high-rate solids removal and post-filtration UV disinfection. Potential impacts caused by the

disruption of existing utilities would be similar to those described above for the proposed project-level facilities. Measures similar to Measures 3.12a through 3.12h would likely be required and would lessen the impact. Proposed program improvements would involve a UV disinfection building and two high-rate sedimentation units. These new facilities would require energy consumption during construction as well as operation. The potential impact to solid waste landfill capacities under this project would be minor due to the types of facilities being proposed.

Leland Reservoir Replacement

The Leland Reservoir Replacement project would drain and demolish the existing Leland Reservoir and replace it with a new 9-million-gallon tank at the same site. Potential impacts to existing utilities would be minimal. The new reservoir would require energy consumption during construction. This project could result in a potential impact to solid waste landfill capacities. A significant amount of earthmoving would be required to demolish the reservoir and construct the new one. Measures similar to Measures 3.12-4a and 3.12-4b would likely be required and would lessen the impact.

New Leland Pressure Zone Reservoir and Pipeline

The proposed New Leland Pressure Zone Pipeline includes of a 1,700-foot-long inlet/outlet pipeline (20-inch diameter). The proposed pipeline alignment extends between the tank site and a transmission main under Interstate 680 and a transmission main in South Main Street. Utility lines carrying water, sewage, natural gas, and storm drain runoff could be located in the project vicinity. Construction of this pipeline could inadvertently disrupt existing utilities. Measures similar to Measures 3.12-1a through 3.12h would lessen the potential impact. These new facilities would require energy consumption during construction. A significant amount of earthmoving would be required to construct the proposed reservoir and pipeline. Measures similar to Measures 3.12-4a and 3.12-4b would likely be required and would lessen the impact.

St. Mary's Road/Rohrer Drive Pipeline

Existing utility lines carrying water, sewer, natural gas, and storm drain runoff could be located in streets along the proposed St. Mary's Road/Rohrer Drive Pipeline alignment. Construction of the proposed pipeline could inadvertently disrupt these lines. Measures similar to Measures 3.12-1a through 3.12-1h would lessen the potential impact. This new pipeline would require energy consumption during construction. Construction of this pipeline could temporarily increase the need for police and fire services in the event of vandalism or destruction.

San Pablo Pipeline

The proposed San Pablo Pipeline would be constructed in an EBMUD access road and would not likely result in the disruption to existing utility lines in the project vicinity. This new pipeline would require energy consumption during construction. Construction of this pipeline could temporarily increase the need for police and fire services in the event of vandalism or destruction.

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