

Orinda Water Treatment Plant Disinfection Improvements Project



Virtual Community Meeting

May 13, 2020



Project Team



- EBMUD
 - Chien Wang, P.E., Project Manager
 - Jeni McGregor, P.E., Senior Engineer
 - David Rehnstrom, P.E., Division Manager
 - Kathryn Horn, Community Affairs
 - Jeff Bandy, P.E., Design Project Manager
- Consultants
 - David Davis, Project Manager, ESA
 - Jyothi Iyer, Air Quality Specialist, ESA
 - Ryan McClain, Transportation Engineer, Fehr & Peers



Speakers



Kathryn Horn, EBMUD



Chien Wang, EBMUD



Technical Specialists



Jyothi Iyer, ESA



Ryan McClain, Fehr & Peers



Agenda



- CEQA Planning and Public Process
- Project Description Review
- Air Quality Analysis Review
- Transportation Analysis Review
- Next Steps
- Q & A



WTTIP Environmental Impact Report



- Water Treatment and Transmission Improvements Program (WTTIP) Environmental Impact Report (EIR) included components of the project
- The WTTIP EIR was certified in 2006
- A Supplemental EIR (SEIR) to the WTTIP EIR is being prepared



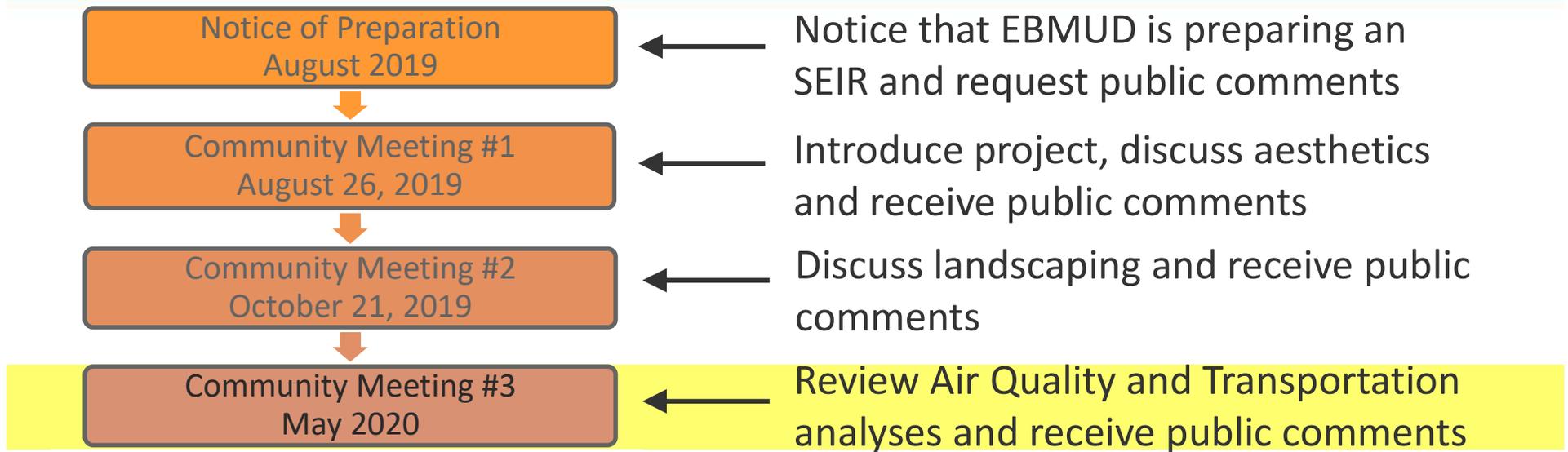
What is an EIR?



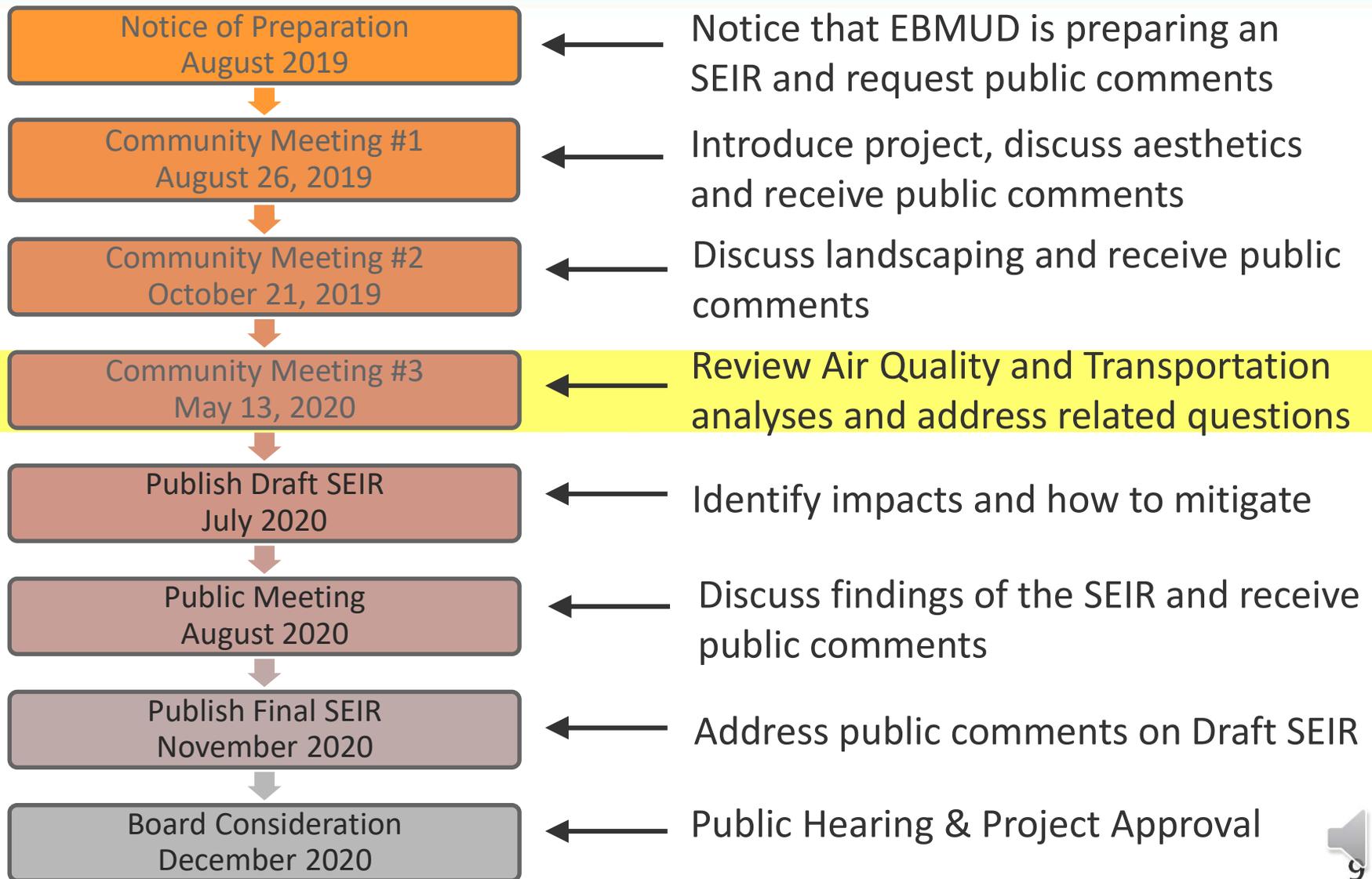
- Purpose:
 - To inform the public of the environmental consequences of projects
- EIR is required:
 - When there is potential that a project may have significant impacts
- The Project Supplemental EIR will analyze resource areas including: Aesthetics, Air Quality, Noise, and Transportation



CEQA Planning & Public Process



CEQA Planning & Public Process





Project Description

Orinda Water Treatment Plant – In Service 1935



1936

1939



Orinda Water Treatment Plant



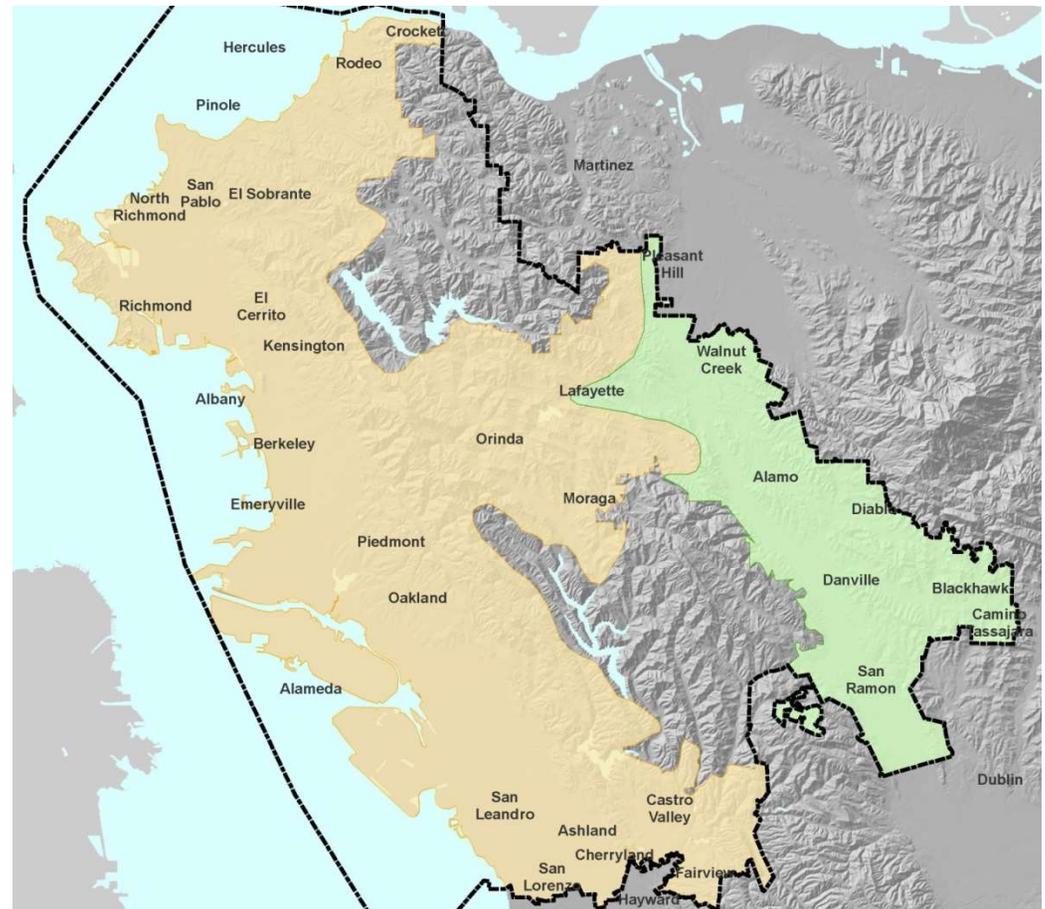
- Supplies water to both sides of the Oakland-Berkeley hills
- Operates year-round



Orinda Water Treatment Plant



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Project Purpose



- Improve disinfection reliability to continue to meet water quality regulations
- Better protect public health by adding a multi-barrier treatment process
- Reduce the formation of disinfection byproducts

The Project will make the Orinda WTP more adaptive to changes in source water quality which we anticipate will continue due to warming climates, fires in the watershed, and future droughts.



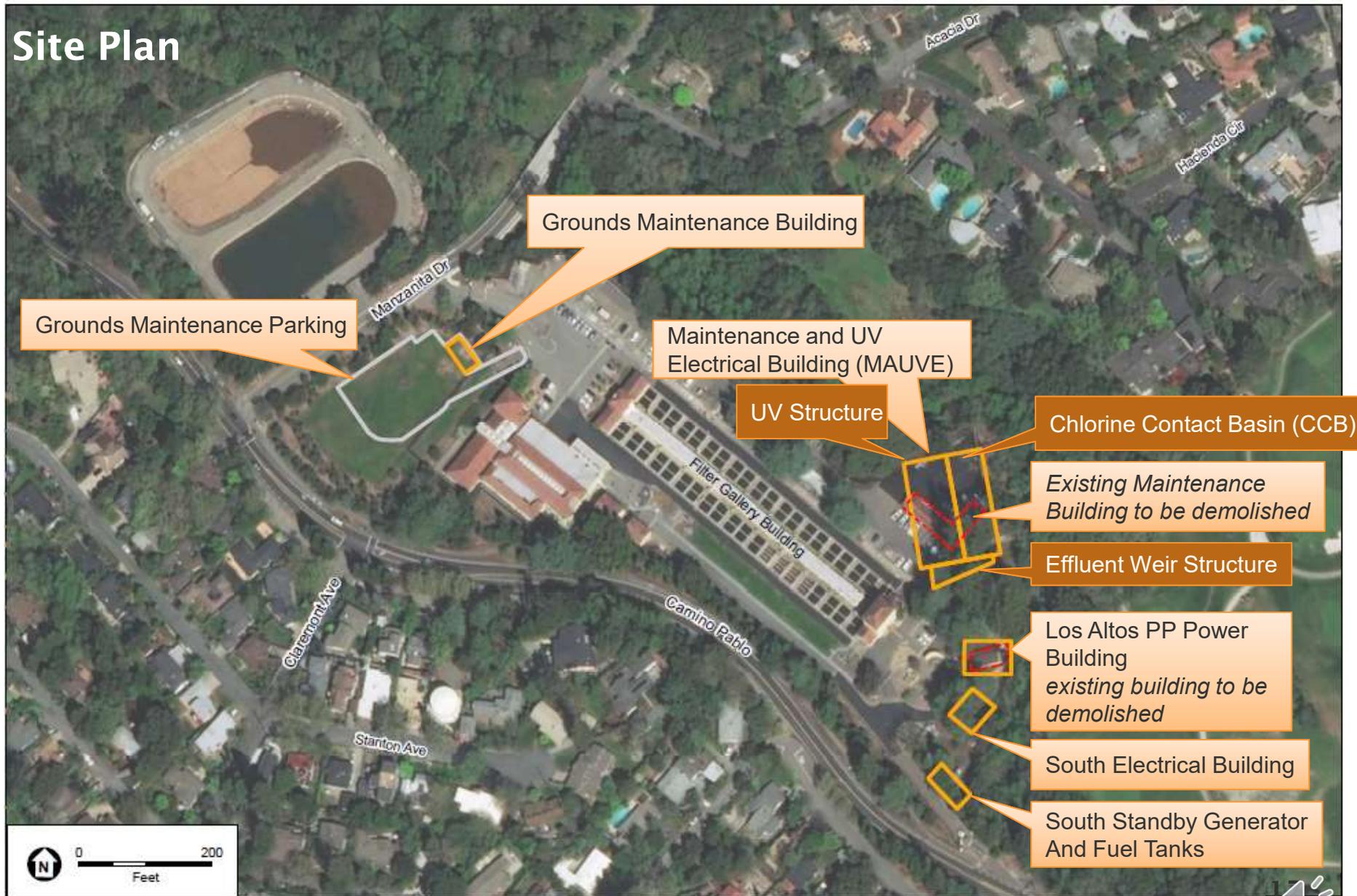
Site Plan



Site Plan



Site Plan



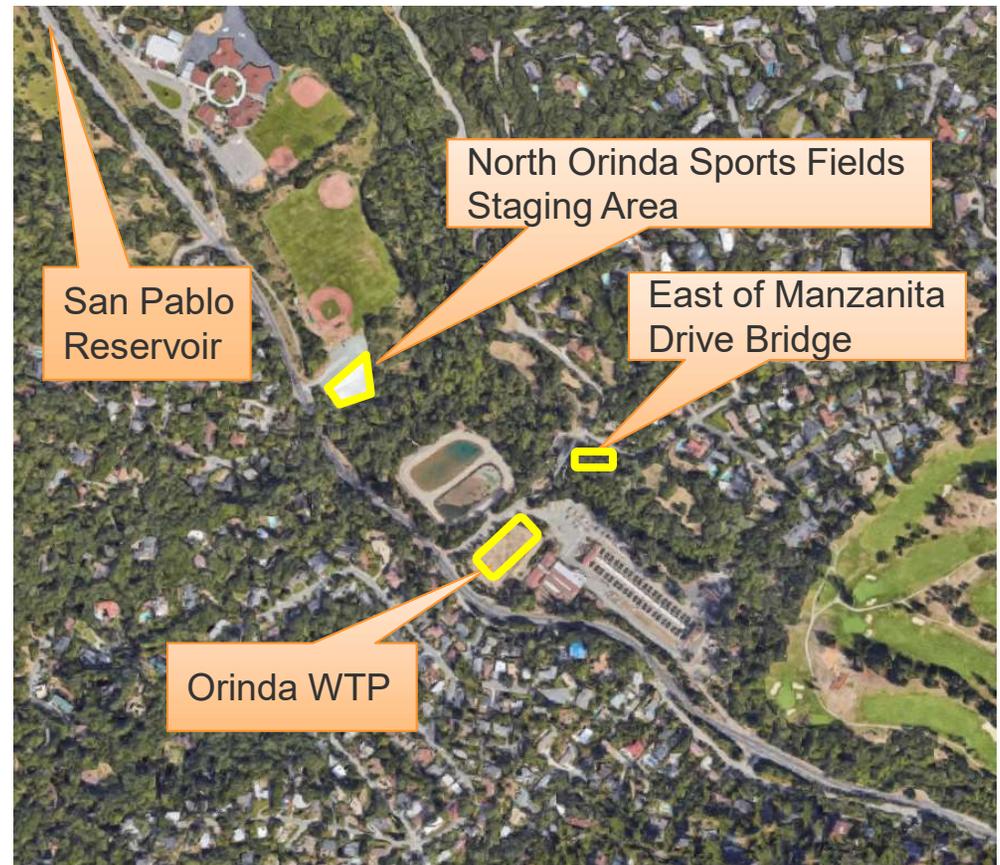
MAUVE Building Architecture



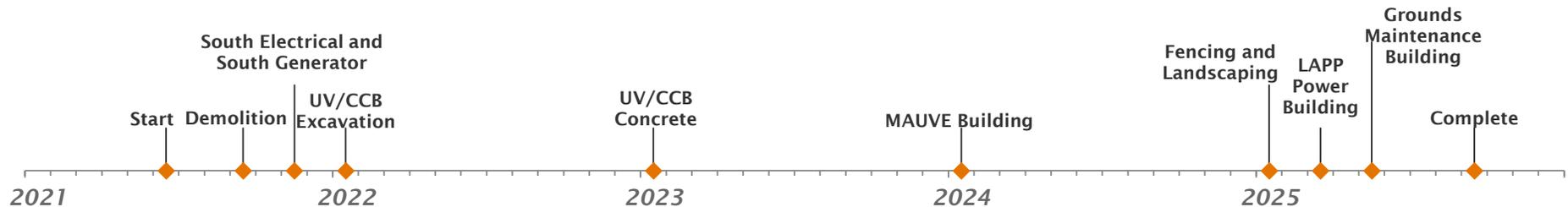
Project Areas



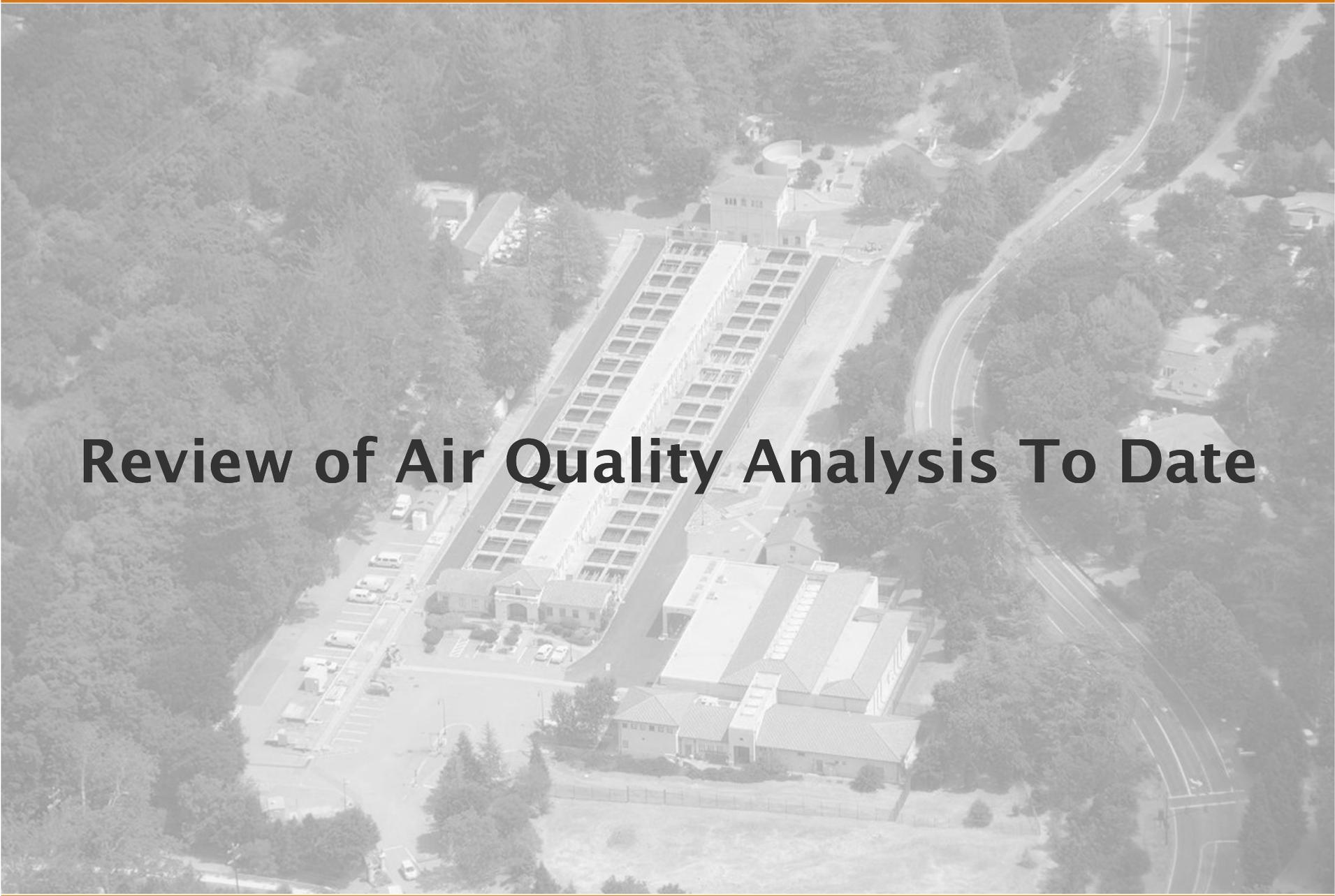
- Main Staging Area: Orinda WTP near Manzanita Drive and Camino Pablo
- EBMUD San Pablo Reservoir overflow parking lots will be used for worker parking and equipment and materials storage
- East of Manzanita Drive Bridge Area will be used for worker parking and office trailers
- Temporary relocation of maintenance staff during construction: EBMUD-owned North Orinda Sports Fields Area south of ballfields and existing parking



Estimated Construction Sequence



- Mobilization and Demolition: Summer-Winter 2021
- Construction
 - UV/CCB Structure Excavation: 2022
 - UV/CCB Structure Concrete: 2023
 - Maintenance and UV Electrical Building: 2024
- Fencing and Landscaping: Spring and Summer 2025



Review of Air Quality Analysis To Date

Community Concerns Regarding Air Quality



- Health effects of air-borne pollutants during construction activities
 - Diesel particulates from construction equipment
 - Sensitive receptors such as children

Air Quality Construction Emissions and Regulations



- Construction activities would temporarily create emissions of dust and equipment exhaust.
- Bay Area Air Quality Management District (BAAQMD)
 - Responsible for developing air quality plans to achieve and maintain ambient air quality standards in the Bay Area
 - 2017 Clean Air Plan
 - Recommends air quality significance thresholds for CEQA

Air Quality Analysis Approach



- Construction emissions (i.e. criteria air pollutants) were quantified using CalEEMod, a statewide emissions inventory model
 - Results were compared to the BAAQMD recommended quantitative thresholds
- A health risk assessment was performed to evaluate the risks from exposure to Diesel Particulate Matter (DPM) which represents the primary health hazard
 - Considers sensitive receptors within 1,000 feet of the construction areas as recommended by BAAQMD
 - Evaluates chronic cancer and non-cancer risks to sensitive receptors

Preliminary Air Quality Analysis Results



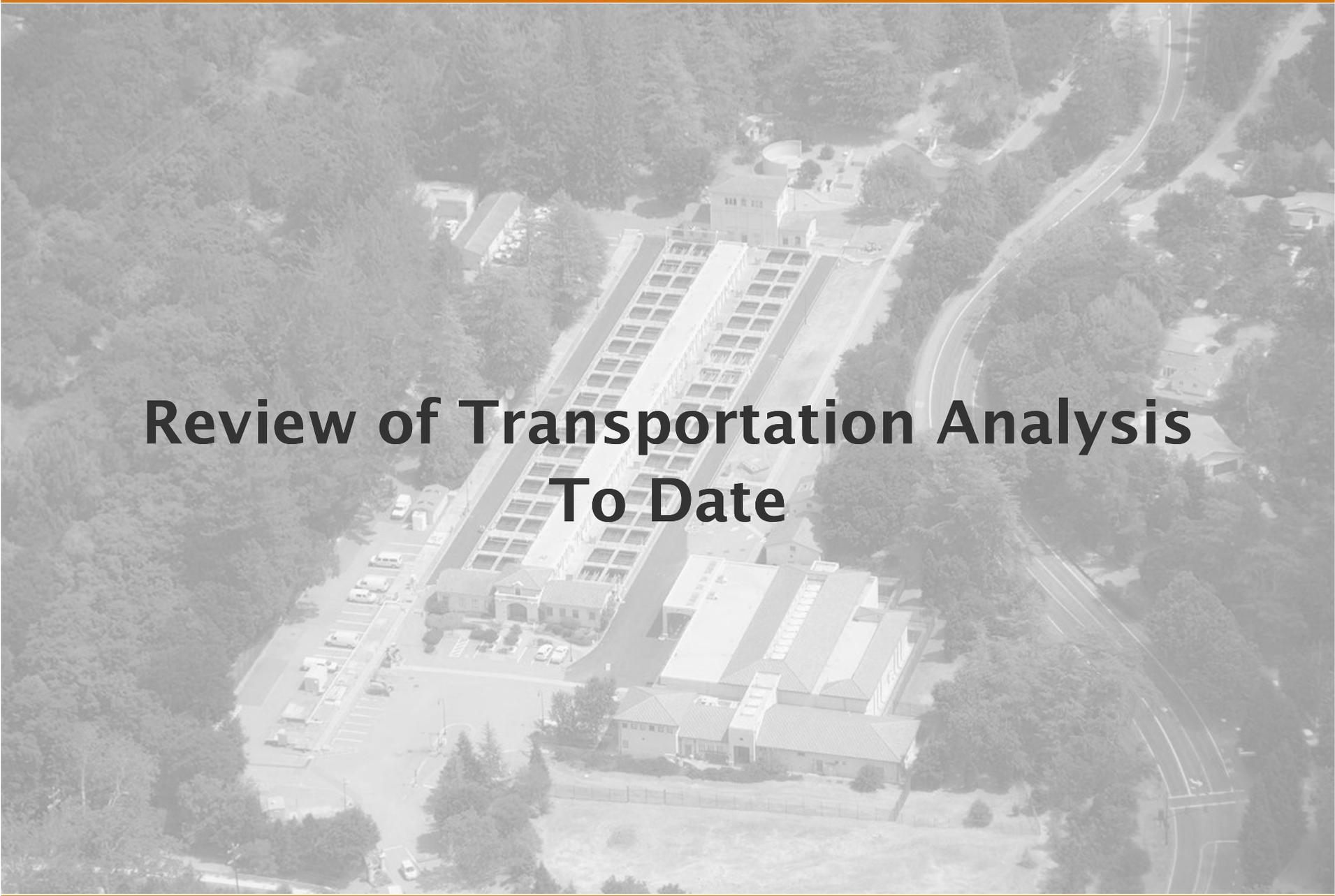
- Construction emissions of particulate matter and ozone pre-cursors (i.e. criteria pollutants) do not exceed BAAQMD thresholds
- Without mitigation, health risks from exposure to construction DPM emissions (i.e. toxic air contaminants) exceed BAAQMD's health risk thresholds

Air Quality Mitigations



- Adopted WTTIP Mitigation Measures incorporated into the Project:
 - BAAQMD Basic and Enhanced Control Measures and Exhaust Controls
- Potential Mitigations:
 - Any BAAQMD recommended Basic Construction Mitigation Measures not included in the adopted mitigation measures
 - Conformance to current, stringent U.S. EPA diesel engine standards

Mitigations result in less than significant impact



**Review of Transportation Analysis
To Date**

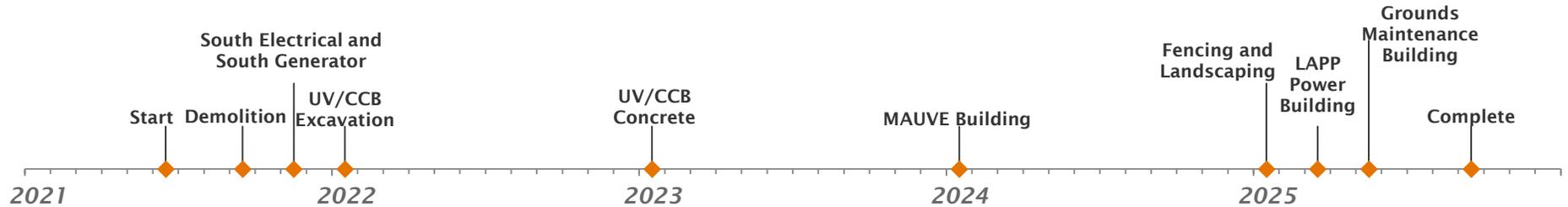
Community Concerns Regarding Traffic



- School commute safety
 - Pedestrians
 - Bicyclists
 - School bus routes
 - North Orinda Sports fields driveway
 - *EBMUD is cost-sharing with the City of Orinda for the new traffic signal camera at the intersection that was installed in early February 2020*



Construction Work Hours and Vehicle Trips



- Project work hours for off-haul and heavy equipment trucks limited to Monday – Friday, 9 a.m. to 4 p.m.
- Concrete deliveries allowed Monday – Friday, 6 a.m. to 6 p.m. to allow continuous concrete pours
- Project trip generation estimates included:
 - Maximum 10 truck roundtrips per hour
 - Maximum 40 worker vehicle roundtrips total per day (during the morning and afternoon commute)

Intersection Analysis



- Studied 12 key intersections
- Compared existing vehicle delay times to Project vehicle delay times
- Peak periods examined:
 - AM: 7 a.m. – 9 a.m.
 - Midday: 11 a.m. – 3 p.m.
 - PM: 4 p.m. – 6 p.m.

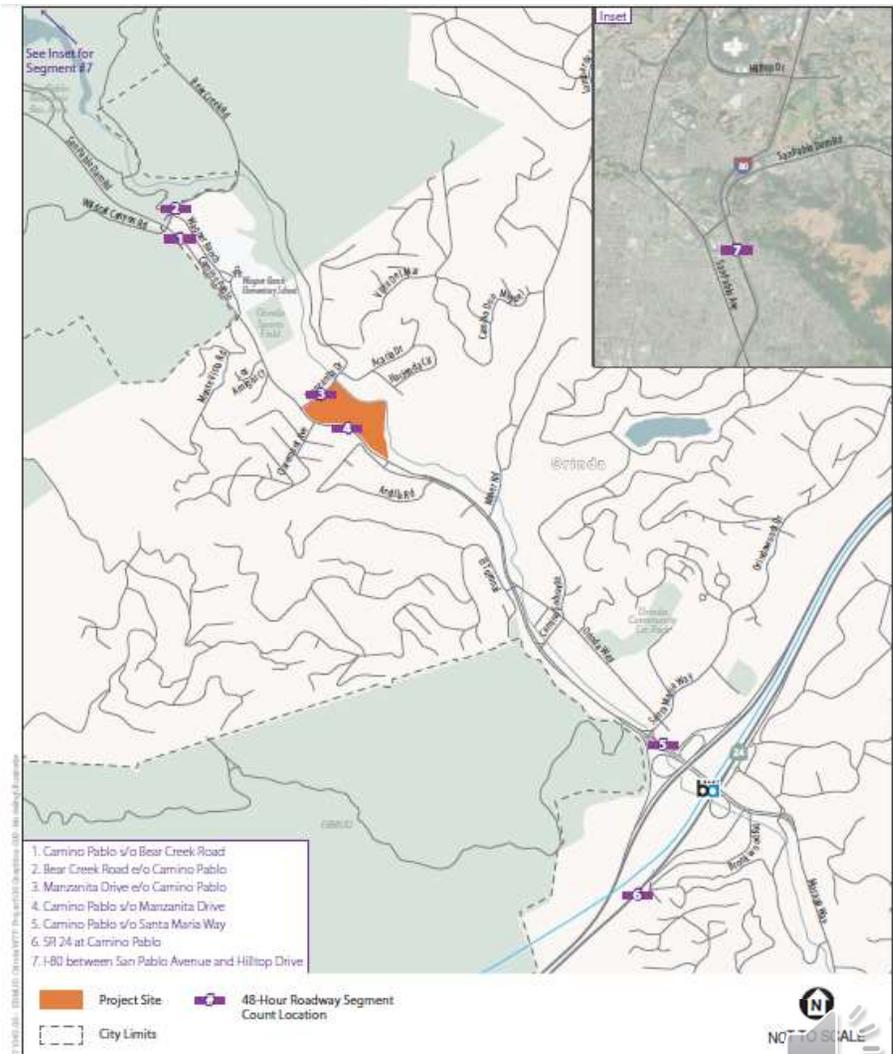


No study intersection had a substantial increase in delay due to the Project

Roadway Average Daily Traffic Analysis Approach



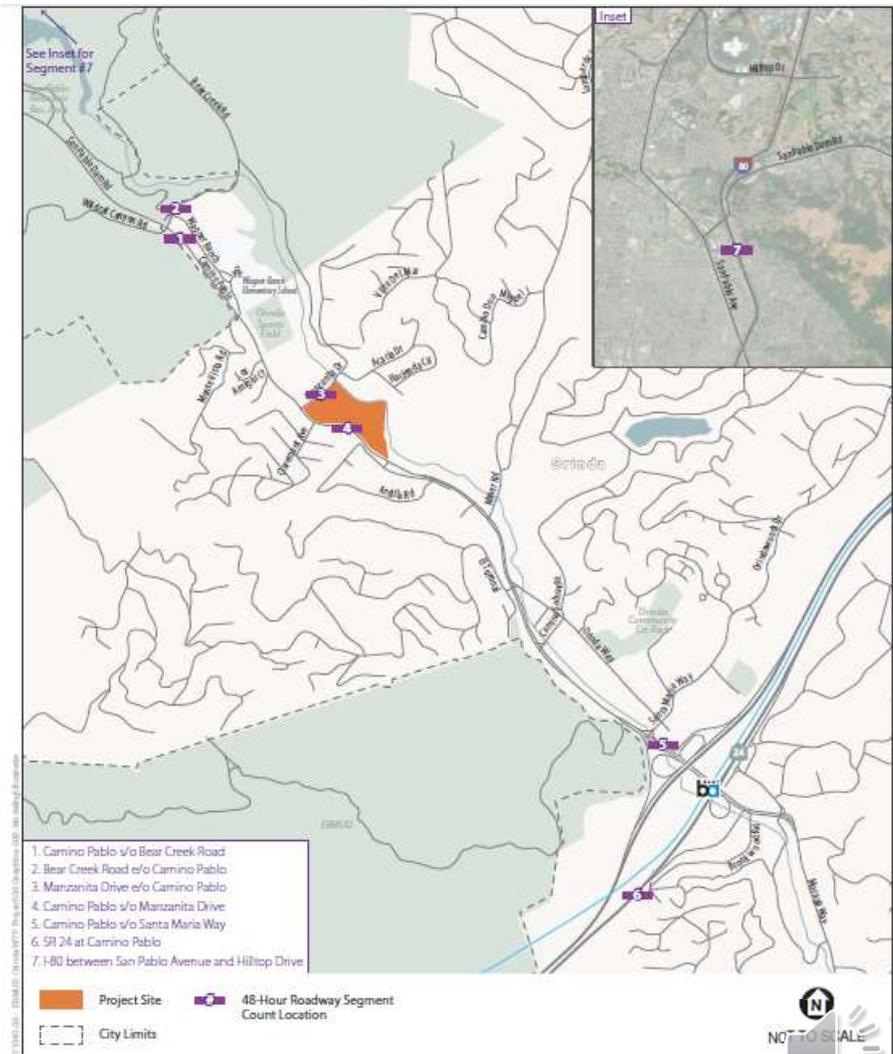
- Average daily traffic (ADT) examined along five roadway segments:
 - Bear Creek Road east of Camino Pablo
 - Manzanita Drive east of Camino Pablo
 - Camino Pablo south of Bear Creek Road
 - Camino Pablo south of Manzanita Drive
 - Camino Pablo south of Santa Maria Way



Preliminary Roadway ADT Analysis Results



- Four roadway segments are showing less than 1% increase in ADT with the Project
- One roadway segment, Manzanita Drive east of Camino Pablo, is showing a 18% increase (maximum) in ADT due to increased active construction traffic



Pedestrians, Bicyclists and Buses



- Traffic counts included pedestrians and bicyclists
- Schoolchildren were the majority of pedestrians and bicyclists between Claremont Avenue and Wagner Ranch Elementary School on Camino Pablo
- Lamorinda School Bus Orinda Intermediate School (OIS) Route 11 has one bus stop on Manzanita Drive



Traffic Mitigations



- Adopted WTTIP Mitigation Measures incorporated into the Project include a Traffic Safety/Management Plan:
 - Minimize traffic disturbances adjacent to schools
 - Provide flaggers and crossing guards when children are going to and from school to ensure pedestrian and traffic safety
- Crossing guards anticipated at Manzanita Drive/Camino Pablo intersection and Orinda WTP Manzanita Drive entrance due to increased active construction traffic on Manzanita Drive roadway segment



Next Steps

Schedule & Next Steps



- Draft SEIR – July 2020
- Draft SEIR Public Meeting – August 2020
- Final SEIR – November 2020
- EBMUD Board Consideration – December 2020

- To participate in the Q&A please make sure you call in on the teleconference number:
 - **855-369-0450**
 - Participant PIN: **658 315 #**
- Please follow the prompts, and participants will be able to speak in the order the prompts are received by the teleconferencing system.

Thank You



To participate in the Q&A, please make sure you call in on the teleconference number:

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Participant PIN: 658 315 #

When you are prompted to speak, please first state your full name.

Project website: www.ebmud.com/orwtpimprovements