INITIAL STUDY AND MITIGATED NEGATIVE DECLARATION

FOR THE

BELLEVUE ROAD RECONSTRUCTION/REALIGNMENT PROJECT

JULY 2024

Prepared for:

City of Atwater
750 Bellevue Rd
Atwater, CA 95301

Prepared by:

De Novo Planning Group
1020 Suncast Lane, Suite 106
El Dorado Hills, CA 95762
(916) 580-9818

De Novo Planning Group

A Land Use Planning, Design, and Environmental Firm

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Bellevue Road Reconstruction/Realignment Project

Lead Agency:
City of Atwater
750 Bellevue Rd
Atwater, CA 95301

Project Title: Bellevue Road Reconstruction/Realignment Project

Project Location: The proposed Project would begin on existing Bellevue Road between Olive Avenue and Grove Avenue to the west and end at the intersection of Parade Street and Bellevue Road to the east (See Figure 1 Regional Location and Figure 2 Vicinity Map). The proposed Project would restore Bellevue Road as a major entry to the northern portion of the City of Atwater (City), providing a direct route between SR-99, the City of Atwater and the Castle Commerce Center to the east, and would reduce vehicle miles traveled (VMT). The Project site is generally flat and traverses mostly orchards and open fields.

Project Description: The City of Atwater, in partnership with the County of Merced (County), initiated a Project Study Report-Project Development Support (PSR-PDS) to evaluate improvements to a major collector road alignment that would help relieve congestion and improve traffic flow through the City along Bellevue Road. The City now proposes to move forward with right-of-way acquisition, improvement plan design, and construction of an approximately 1.6-mile-long, 4-lane arterial road in Merced County. The proposed road would begin between Olive Avenue and Grove Avenue, east of State Route 99. Bellevue Road would be realigned south of the existing Bellevue Road, then conform near the intersection of Parade Street and Bellevue Road. New intersection connections would be required at Vine Avenue and Orchard Park Avenue. The proposed Project would also include Class IV bike lanes. All improvements would be designed to the City of Atwater Standards.

The proposed Project would provide connectivity between State Route 99 and the heart of Atwater, as well as the Castle Commerce Center located near the east side of the City. Currently, Bellevue Road is a public road, closed to the public (between Vine Avenue and Orchard Park) under a Conditional Use Permit (CUP) #3721 approved for Dole Packaged Foods between Vine Avenue and Orchard Park Avenue. This causes an additional 2.5 miles of travel to navigate to the State Route 99/West Side interchange from the City. The road realignment would provide a direct route and reduce VMT.

Multiple design alternatives are being considered for the alignment of Bellevue Road. Construction cost estimates are not fully developed at this early planning/engineering stage. Additionally, precise improvements, such as required retaining wall, utility design, etc., are details that would be developed after the alternative alignment is selected and more detailed engineering and design is needed to move toward the construction phase. Each alternative alignment has an established footprint that would encapsulate all necessary improvements for that alternative. It is assumed in this analysis that the entire footprint of the alternative selected would be disturbed during construction.

Findings:
In accordance with the California Environmental Quality Act, the City of Atwater has prepared an Initial Study to determine whether the proposed project may have a significant adverse effect on the environment. The Initial Study and Proposed Mitigated Negative Declaration reflect the independent judgment of City of Atwater staff. On the basis of the Initial Study, the City of Atwater hereby finds:

> *Although the proposed project could have a significant adverse effect on the environment, there will not be a significant adverse effect in this case because the project has incorporated specific provisions to reduce impacts to a less than significant level and/or the mitigation measures described herein have been added to the project. A Mitigated Negative Declaration has thus been prepared.*

The Initial Study, which provides the basis and reasons for this determination, is attached, and/or referenced herein and is hereby made a part of this document.

_____ _____

Signature Date

Proposed Mitigation Measures:

The following Mitigation Measures are extracted from the Initial Study. These measures are designed to avoid or minimize potentially significant impacts, and thereby reduce them to an insignificant level. A Mitigation Monitoring and Reporting Program (MMRP) is an integral part of project implementation to ensure that mitigation is properly implemented by the City and the implementing agencies. The MMRP will describe actions required to implement the appropriate mitigation for each CEQA category including identifying the responsible agency, program timing, and program monitoring requirements. Based on the analysis and conclusions of the Initial Study, the impacts of proposed project would be mitigated to less-than-significant levels with the implementation of the mitigation measures presented below.

AIR QUALITY

Mitigation Measure AIR-1*: Prior to issuance of grading permits, as applicable, the project applicant shall provide information to the City of Atwater describing the methods by which the following measures would be complied with:*

- *Off-road equipment used onsite shall achieve a fleet-average emissions equal to or less than the Tier II emissions standard of 4.8 grams of NOx per horsepower hour. This can be achieved through any combination of uncontrolled engines and engines complying with Tier II and above engine standards. Tier II emission standards are set forth in Section 2423 of Title 13 of the California Code of Regulations, and Part 89 of Title 40 Code of Federal Regulations.*
- *Construction equipment shall be properly maintained at an offsite location; maintenance shall include proper tuning and timing of engines. Equipment maintenance records and data sheets of equipment design specifications shall be kept on-site during construction.*
- *Onsite construction equipment shall not idle for more than 5 minutes in any one hour.*
- *Construction workers shall be encouraged to carpool to and from the construction site to the greatest extent practical. Workers shall be informed in writing and a letter shall be placed on file in the City office documenting efforts to carpool.*

BIOLOGICAL RESOURCES

Mitigation Measure BIO-1*: Prior to commencement of any grading activities, a pre-construction survey shall be conducted by a qualified biologist. The survey shall cover the Project site plus a 500 – foot buffer to include pedestrian surveys achieving 100 percent visual coverage.*

CULTURAL RESOURCES

Mitigation Measure CUL-1*: During the initial phase of grading/excavation, The proposed Project proponent shall retain a qualified archaeologist to survey the site and monitor construction activities. If any prehistoric or historic artifacts, human remains or other indications of archaeological resources are found during grading and construction activities, an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards in prehistoric or historical archaeology, as appropriate, shall be consulted to evaluate the finds and recommend appropriate mitigation measures.*

- *If cultural resources or Native American resources are identified, every effort shall be made to avoid significant cultural resources, with preservation an important goal. If significant sites cannot feasibly be avoided, appropriate mitigation measures, such as data recovery excavations or photographic documentation of buildings, shall be undertaken consistent with applicable state and federal regulations.*
    - *If human remains are discovered, all work shall be halted immediately within 50 meters (165 feet) of the discovery, the County Coroner must be notified, according to Section 5097.98 of the State Public Resources Code and Section 7050.5 of California's Health and Safety Code. If the remains are determined to be Native American, the coroner would notify the Native American Heritage Commission, and the procedures outlined in CEQA Section 15064.5(d) and (e) shall be followed.*

If any fossils are encountered, there shall be no further disturbance of the area surrounding this find until the materials have been evaluated by a qualified paleontologist, and appropriate treatment measures have been identified.

GEOLOGY AND SOILS

Mitigation Measure GEO-1*: The proposed Project applicant shall submit a Notice of Intent (NOI) and Storm Water Pollution Prevention Plan (SWPPP) to the RWQCB in accordance with the NPDES General Construction Permit requirements. The SWPPP shall be designed to control pollutant discharges utilizing Best Management Practices (BMPs) and technology to reduce erosion and sediments. BMPs may consist of a wide variety of measures taken to reduce pollutants in stormwater runoff from the Project site. Measures shall include temporary erosion control measures (such as silt fences, staked straw bales/wattles, silt/sediment basins and traps, check dams, geofabric, sandbag dikes, and temporary revegetation or other ground cover) that would be employed to control erosion from disturbed areas. Final selection of BMPs would be subject to approval by the City of Atwater and the RWQCB. The SWPPP would be kept on site during construction activity and would be made available upon request to representatives of the RWQCB.*

LAND USE AND PLANNING

Mitigation Measure (ALT-2) LAND-1*: Prior to the commencement of construction activities, the project proponent shall implement the following:*

- *The project proponent shall design and include on project improvement plans a safety pedestrian crossing across Bellevue Road, connecting the parking area to the main facility of the Dole Packaged Food facility. The pedestrian crossing shall comply with applicable safety standards and guidelines, including signage, crosswalk markings, and necessary traffic control measures as required by the standards of the City of Atwater.*
- *The project proponent shall engage in pond relocation efforts. This may include the relocation of the entire pond or a portion thereof, ensuring that the total pond capacity is not diminished. The relocation process shall be conducted in accordance with all relevant environmental regulations and permits, if applicable.*
- *As an alternative, the project proponent and Dole International can develop a parking plan that achieves alternative safe access for pedestrians through an alternative parking location, or other designs.*

The project proponent shall submit the improvement plans and specifications for the safety pedestrian crossing and pond relocation to the City of Atwater Engineer for review and approval.

Mitigation Measure (ALT-3) LAND-1*: Prior to the commencement of construction activities, the project proponent shall implement the following:*

- *The project proponent shall design and include on project improvement plans a safety pedestrian crossing across Bellevue Road, connecting the parking area to the main facility of the Dole Packaged Food facility. The pedestrian crossing shall comply with applicable safety standards and guidelines, including signage, crosswalk markings, and necessary traffic control measures as required by the standards of the City of Atwater.*
- *The project proponent shall engage in pond relocation efforts. This may include the relocation of the entire pond or a portion thereof, ensuring that the total pond capacity is not diminished. The relocation process shall be conducted in accordance with all relevant environmental regulations and permits, if applicable.*
- *As an alternative, the project proponent and Dole International can develop a parking plan that achieves alternative safe access for pedestrians through an alternative parking location, or other designs.*

The project proponent shall submit the improvement plans and specifications for the safety pedestrian crossing and pond relocation to the City of Atwater Engineer for review and approval.

NOISE

Mitigation Measure NOISE-1(A)(ALT-1)*: For Alternative 1, quiet pavement shall be installed for Bellevue Road along existing sensitive receptors to mitigate the traffic noise increases. In lieu of quiet pavement, minimum 6-foot-tall sound walls should be constructed along the residential uses located north and south of Bellevue Road along the realigned roadway. Figure 6 of the Bellevue Reconstruction/Realignment Project Environmental Noise Assessment shows the location of the sound walls. Sound walls should be of masonry type construction.*

Mitigation Measure NOISE-1(A)(ALT-2)*: For Alternative 2, a minimum 6-foot-tall sound wall shall be constructed along the residential uses located north and south of Bellevue Road along the realigned roadway. Figure 6 of the Bellevue Reconstruction/Realignment Project Environmental Noise Assessment shows the location of the sound walls.*

Sound walls should be of masonry type construction. Quiet pavement should be installed for Bellevue Road along existing sensitive receptors to mitigate the traffic noise increases.

***Mitigation Measure NOISE-1(A)(ALT-3)**: For Alternative 3, a minimum 6-foot-tall sound wall shall be constructed along the residential uses located north and south of Bellevue Road along the realigned roadway. Figure 6 of the Bellevue Reconstruction/Realignment Project Environmental Noise Assessment shows the location of the sound walls. Sound walls should be of masonry type construction. Quiet pavement should be installed for Bellevue Road along existing sensitive receptors to mitigate the traffic noise increases.*

***Mitigation Measure NOISE-2**: The City shall establish the following as conditions of approval for any permit that results in the use of construction equipment:*

- *Construction shall be limited to between 7:00 a.m. to 7:00 p.m. on Monday to Friday and between 9:00 a.m. to 5:00 p.m. on Saturdays and Sundays projects within the City of Atwater.*
- *All construction equipment powered by internal combustion engines shall be properly muffled and maintained.*
- *Quiet construction equipment, particularly air compressors, are to be selected whenever possible.*
- *All stationary noise-generating construction equipment such as generators or air compressors are to be located as far as is practical from existing residences. In addition, the project contractor shall place such stationary construction equipment so that emitted noise is directed away from sensitive receptors nearest the project site.*
- *Unnecessary idling of internal combustion engines is prohibited.*
- *The construction contractor shall, to the maximum extent practical, locate on-site equipment staging areas to maximize the distance between construction-related noise sources and noise-sensitive receptors nearest the project site during all project construction.*

Timing/Implementation: Implemented prior to approval of grading and/or building permits Enforcement/Monitoring: City of Atwater Community Development Services Department.

***Mitigation Measure NOISE-3**: If use of vibratory compactors is required within 25 feet, or less, of a residential structure, pre-construction crack documentation and construction vibration monitoring shall be conducted to ensure that construction vibrations do not cause damage to any adjacent structures. Alternatively, use of hand compaction equipment could be employed to minimize ground vibrations.*

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INITIAL STUDY CHECKLIST

PROJECT TITLE

Bellevue Road Reconstruction/Realignment Project

LEAD AGENCY NAME AND ADDRESS

City of Atwater
750 Bellevue Rd
Atwater, CA 95301

CONTACT PERSON AND PHONE NUMBER

Attn: Greg Thompson
City of Atwater
750 Bellevue Rd
Atwater, CA 95301
209-357-6300

PROJECT LOCATION

The proposed Project would begin on existing Bellevue Road between Olive Avenue and Grove Avenue to the west and end at the intersection of Parade Street and Bellevue Road to the east (See Figure 1 Regional Location and Figure 2 Vicinity Map). The proposed Project would restore Bellevue Road as a major entry to the northern portion of the City of Atwater (City), providing a direct route between SR-99, the City of Atwater and the Castle Commerce Center to the east, and would reduce vehicle miles traveled (VMT). The Project site is generally flat and traverses mostly orchards and open fields.

PURPOSE AND NEED

Purpose: The purpose of the proposed Project is to:

- Improve accessibility and mobility of goods and persons in Atwater;
- Provide a direct route from the SR 99/Westside Boulevard interchange to the City and to the Castle Commerce Center;
- Reduce VMT;
- Reduce travel time;
- Provide bicycle and pedestrian facilities;
- Accommodate local development and provide consistency with existing and planned local and regional development.

Need: The proposed Project would deliver roughly 1.6 miles of a four-lane urban major arterial roadway with Class IV bike lanes. The project alignment spans across City of Atwater and Merced County right-of-way. The proposed Project entails realigning Bellevue Road south of the Dole Packaged Foods campus, between just west of Grove Avenue and the Atwater Canal, and rehabilitating/restriping Bellevue Road between the Atwater Canal and Parade Street. Bellevue Road is currently closed to traffic within the developed portion of the Dole Packaged Foods campus, requiring the public to take extensive detours to access the City and the Castle Commerce

Center. These detours contribute to additional vehicle miles traveled and travel time, reducing the accessibility and mobility of goods and persons to the heart of Atwater.

The proposed project would add, enhance, and improve circulation network choices for local motorists to access and leave the Castle Commerce Center and Atwater more efficiently. VMT would be decreased, as Bellevue Road would provide a more direct route.

PROJECT DESCRIPTION

The City of Atwater, in partnership with the County of Merced (County), initiated a Project Study Report-Project Development Support (PSR-PDS) to evaluate improvements to a major collector road alignment that would help relieve congestion and improve traffic flow through the City along Bellevue Road. The City now proposes to move forward with right-of-way acquisition, improvement plan design, and construction of an approximately 1.6-mile-long, 4-lane arterial road in Merced County. The proposed road would begin between Olive Avenue and Grove Avenue, east of State Route 99. Bellevue Road would be realigned south of the existing Bellevue Road, then conform near the intersection of Parade Street and Bellevue Road. New intersection connections would be required at Vine Avenue and Orchard Park Avenue. The proposed Project would also include Class IV bike lanes. All improvements would be designed to the City of Atwater Standards.

The proposed Project would provide connectivity between State Route 99 and the heart of Atwater, as well as the Castle Commerce Center located near the east side of the City. Currently, Bellevue Road is a public road, closed to the public (between Vine Avenue and Orchard Park) under a Conditional Use Permit (CUP) #3721 approved for Dole Packaged Foods between Vine Avenue and Orchard Park Avenue. This causes an additional 2.5 miles of travel to navigate to the State Route 99/West Side interchange from the City. The road realignment would provide a direct route and reduce VMT.

ALTERNATIVES

Multiple design alternatives are being considered for the alignment of Bellevue Road. Construction cost estimates are not fully developed at this early planning/engineering stage. Additionally, precise improvements, such as required retaining wall, utility design, etc., are details that would be developed after the alternative alignment is selected and more detailed engineering and design is needed to move toward the construction phase. Each alternative alignment has an established footprint that would encapsulate all necessary improvements for that alternative. It is assumed in this analysis that the entire footprint of the alternative selected would be disturbed during construction.

The first alternative proposes to realign Bellevue Road to the south of the existing Bellevue alignment. The second alternative proposes to widen the existing Bellevue Road. A third alternative emerged between these two, just south of the existing Bellevue Road.

The majority of the Project site is outside of the City of Atwater, but within its Sphere of Influence. The City and County have acknowledged that the proposed Project would be designed using the City of Atwater Design Standards. The Atwater City General Plan states Bellevue Road has a speed of 45 mph; however, the western portion of the segment would remain rural for an extended period of time so it can be traversed at a higher speed. The design speed varies along the Project site and changes from 55 mph on the west to 45 mph about 1,000 feet west of the Orchard Park alignment.

Alternative I entails realigning Bellevue Road south of the Dole Packaged Foods campus between just west of Grove Avenue and the Atwater Canal and reconstruction/restriping between Gipson Street and Parade Street. Bellevue Road would be widened to four lanes beginning between Olive Avenue and Grove Avenue to the West and conform to the existing four-lane with a two-way left turn lane condition to the East.

Alternative II entails widening along the existing Bellevue Road alignment between Grove Avenue and the Atwater Canal and reconstruction/restriping between Gipson Street and Parade Street. Bellevue Road would be widened to four lanes beginning between Olive Avenue and Grove Avenue to the West and conform to the existing four-lane with a two-way left turn lane condition to the East.

Alternative III entails realigning Bellevue Road just south of the Dole Packaged Foods campus and the existing roadway alignment between just west of Grove Avenue and the Atwater Canal and reconstruction/restriping between Gipson Street and Parade Street. Bellevue Road would be widened to four lanes beginning between Olive Avenue and Grove Avenue to the West and conform to the existing four-lane with a two-way left turn lane condition to the East.

The Bellevue Road alternatives are discussed below.

Alternative I

Alternative I is a realignment of approximately 1.6 miles of 4-lane arterial roadway with a Class IV bikeway beginning at Olive Avenue on the east and ending at the Atwater Canal (about 600 feet west of Parade Street). Bellevue would be widened from a two-lane to a four-lane roadway and includes a raised median, sidewalks, and a Class IV bikeway. This alternative realigns Bellevue Road about 750 feet south of the existing Bellevue Road. This alignment contains horizontal curves with no superelevation designed for 55 mph on the west and 45 mph on the eastern half. The proposed alignment cuts through the Dole Packaged Foods agricultural land and avoids impacts to their basin locations, parking lots and buildings.

The realigned Bellevue Road would require connections to existing roads to be reestablished. Improvements to the Grove Avenue, Vine Avenue, Orchard Park Avenue, the existing Bellevue Road, and Gipson Street would be implemented to maintain access for all travelers. Additionally, a cul-de-sac is proposed along Vine Avenue to ensure there is no public access to the portion of the existing Bellevue Road that is closed to the public.

The proposed Project aims to improve accessibility and circulation to and through the City by providing a Class IV bikeway and sidewalks which are consistent with existing and planned facilities by local and regional development efforts.

Alternative I would be designed consistent with the latest Highway Design Manual as well as according to local design standards for the City. Nonstandard features are not anticipated.

Alternative II

Alternative II is a roadway widening of approximately 1.2 miles of 4-lane arterial roadway with a Class IV bikeway beginning at Olive Avenue on the east and ending at the Atwater Canal (about 600 feet west of Parade Street). Bellevue would be widened from a two-lane to a four-lane roadway and includes a raised median, sidewalks, and a Class IV bikeway. This alternative contains no curves and is aligned along the existing Bellevue Road.

The proposed Alternative II alignment would have impacts to the Dole International Plant. The widening would impact the employee plant parking lots east of Vine Avenue on the north and south side of the road. This would require a parking reconfiguration for Dole that would affect employee access to the plant. It would also affect truck accessibility of the plant as it cuts through the Dole truck staging area. The Dole International pond on the north side of Bellevue would be affected with the roadway widening. This would require regrading and relocating the pond north.

According to field assessment and a LiDAR surface obtained from USGS, there is an elevation difference between the existing parking lot on the south side of Bellevue Road and the existing Bellevue Road centerline. Assuming the existing roadway grade for the proposed profile would be maintained, a retaining wall has been proposed between Vine Avenue and Orchard Park Avenue.

The proposed Project aims to improve accessibility and circulation to and through the City by providing a Class IV bikeway and sidewalks which are consistent with existing and planned facilities by local and regional development efforts.

Alternative II would be designed consistent with the latest Highway Design Manual as well as according to local design standards for the City. Nonstandard features are not anticipated.

Alternative III

Alternative III is a realignment of approximately 1.2 miles of 4-lane arterial roadway with a Class IV bikeway beginning at Olive Avenue on the east and ending at the Atwater Canal (about 600 feet west of Parade Street). Bellevue would be widened from a two-lane to a four-lane roadway and includes a raised median, sidewalks, and a Class IV bikeway. This alternative realigns Bellevue Road just south of the existing Bellevue Road. This alignment contains horizontal curves with no superelevation designed for 55 mph on the west and 45 mph on the east. In comparison to Alternative I, the proposed Alternative III alignment reduces impacts to Dole Packaged Foods agricultural land but introduces impacts to their basin locations, parking lots and buildings. Approximately 1,500 lineal feet of retaining wall is anticipated to be required along the proposed south right-of-way edge adjacent to existing Dole Packaged Foods facilities.

The realigned Bellevue Road would require connections to existing roads to be reestablished. Improvements to the Grove Avenue, Vine Avenue, Orchard Park Avenue, the existing Bellevue Road, and Gipson Street would be implemented to maintain access for all travelers. Cul-de-sacs and other access control measures would likely be required to ensure there is no public access to the portion of the existing Bellevue Road that is closed to the public.

The proposed Project aims to improve accessibility and circulation to and through the City by providing a Class IV bikeway and sidewalks which are consistent with existing and planned facilities by local and regional development efforts.

Alternative III would be designed consistent with the latest Highway Design Manual as well as according to local design standards for the City. Nonstandard features are not anticipated.

RIGHT-OF-WAY

Widening/ realigning Bellevue Road would require additional right-of-way, allowing for two additional lanes as well as the construction of a 16-foot-wide raised median, 6-foot-wide buffered Class IV Bikeway, and two separated 8-foot-wide sidewalks, and two 10-foot wide Public Utility Easements (PUEs). This widening would result in a total right-of-way increase from about 48 feet to 130 feet.

The Alternative II alignment and widening would impact two parking lots, ponds, a propane tank, fencing and more. The Alternative III alignment and widening would impact a parking lot, a pond, a propane tank, a generator, an office building, fencing and more. The Alternative I is designed to avoid much of the impacts under Alternative II and III with a bypass to the south of the Dole facility.

The opening of Bellevue Road, especially along the existing alignment (Alternative II), and along the Alternative III alignment, would increase the amount of traffic traveling by the Dole International Plant.

There is a Conditional Use Permit (CUP) #3721 between Merced County and Dole International. This document was officially recorded on January 14, 1994. The document permits Dole to use Bellevue Road between Vine Avenue and Orchard Park Avenue to expand their agricultural products processing facility and add 192,000 square feet of structures and additional parking and landscaping on their 157-acre site. The CUP #3721 states that Dole shall dedicate to Merced County a swath of land 40' wide along the Bellevue Road realignment between Vine Avenue and the westerly intersection with existing Bellevue Road, and 20' wide from Vine Avenue to Orchard Park Avenue. The CUP #3721 also requires the dedication of 60' wide rights-of-ways for the extensions of Vine Avenue and Orchard Park Avenue. Further coordination would be needed to ensure that the team and Dole agree on their understanding of this document and how it would be enforced.

At this time, no temporary construction easements have been estimated. It has been assumed that all work can be done from the public/ permanent right-of-way.

UTILITIES

According to utility mapping received, overhead electrical lines are situated along Bellevue Road, Grove Avenue, Vine Avenue, and Orchard Park Avenue. PG&E overhead transmission lines are located on the south side of Bellevue Road along the entire project area. While Alternative I would avoid most of the transmission pole relocations because of the southernly realignment, Alternatives II and III would require relocation of these poles. The utility companies with potential conflicts within the public right-of-way include:

- AT&T / Pacific Bell
- PG&E
- Comcast
- Merced Irrigation District (Electric and Irrigation)

The drainage basins proposed for Alternative I, Alternative II, and Alternative III have been schematically placed and sized.

There are currently no railways located within the project limits.

GENERAL PLAN AND ZONING DESIGNATIONS

The County of Merced's General Plan has identified the area as being inside the City's Planning Area (County of Merced, 2021). According to the City of Atwater General Plan, designated land uses within the Project area include Low Density Residential, High Density Residential, Path/Park, Commercial, and Business Park. The proposed Project would be designed to increase connectivity through Atwater and is not anticipated to divide the community. See Figure 4 Existing General Plan Land Use and Figure 5 Zoning.

REQUESTED ENTITLEMENTS AND OTHER APPROVALS

The City of Atwater is the Lead Agency for the proposed project, pursuant to the State Guidelines for Implementation of CEQA, Section 15050. This document would be used by the City of Atwater to take the following actions:

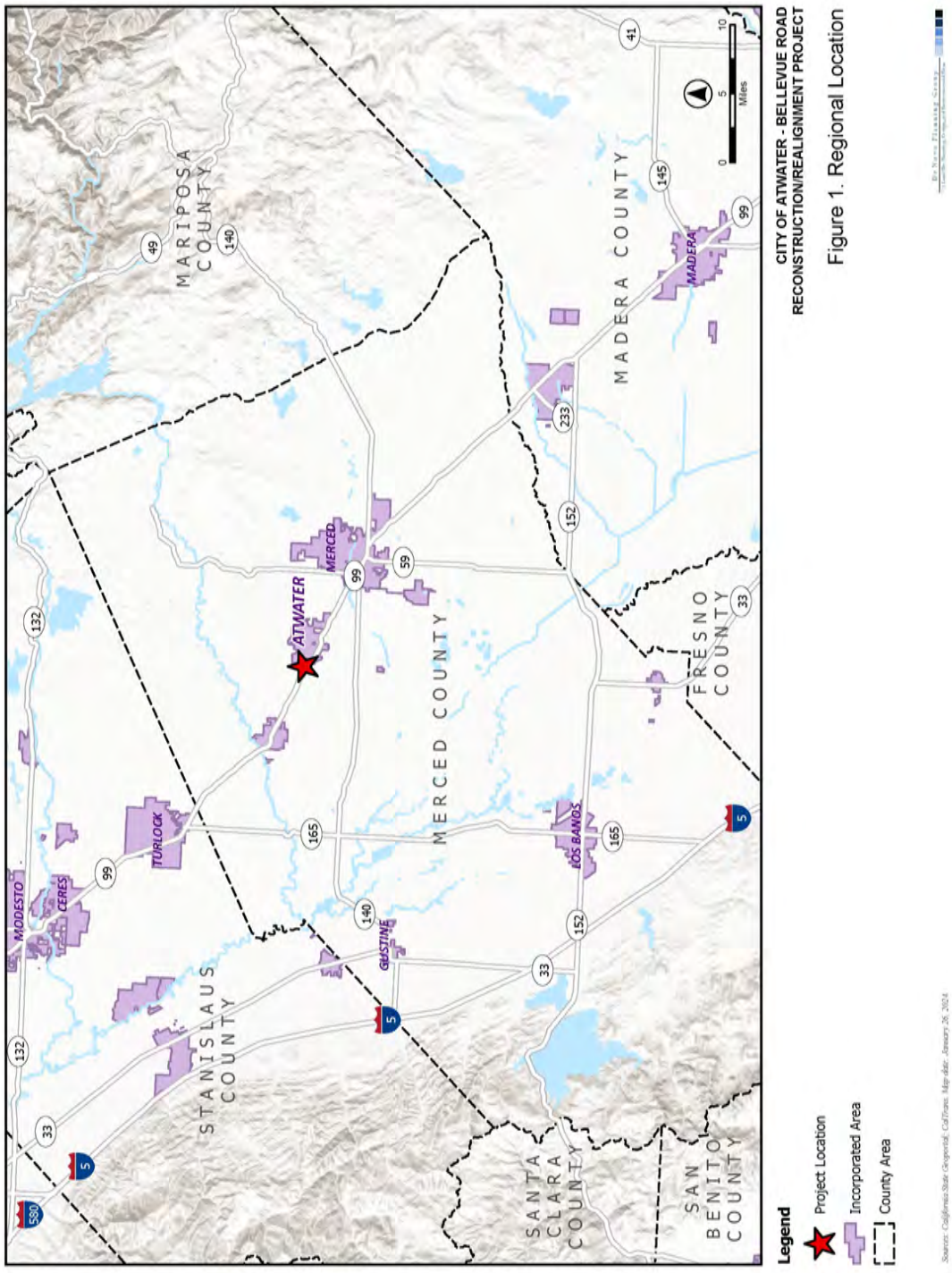
- Adoption of the Mitigated Negative Declaration (MND);
- Adoption of the Mitigation Monitoring and Reporting Program;
- Approval of the Bellevue Road Reconstruction/Realignment Project.

The following agencies may be required to issue permits or approve certain aspects of the proposed project:

- Regional Water Quality Control Board (RWQCB) - Storm Water Pollution Prevention Plan (SWPPP) approval prior to construction activities pursuant to the Clean Water Act.
- California Department of Transportation (Caltrans) – Approval of encroachment permits at SR99.
- Merced Irrigation District (Encroachment Permit)

It is noted that the proposed Project was originally anticipated to require federal funding, which would create a federal nexus and requirement for NEPA approval. Under the federal funding scenario, it was anticipated that the NEPA compliance would involve the preparation of a Routine Environmental Assessment to support a Finding of No Significant Impact (EA/FONSI). This would be led by Caltrans as the Federal Lead Agency for NEPA.

Currently, the City of Atwater and County of Merced have received funding for the PSR-PDS through Merced County's Measure V Transportation Sales Tax Regional Projects Funds. The City and County are anticipating that the future phases for this project would also be funded by Measure V as well. At this time federal-aid and state funding has not been secured for future phases, and there is no nexus for a NEPA document. The City and County would look for opportunities for federal funding, and if they materialize, then the City would engage Caltrans to ensure that the appropriate NEPA documents are prepared.


CITY OF ATWATER - BELLEVUE ROAD
RECONSTRUCTION/REALIGNMENT PROJECT
Figure 1. Regional Location
Legend
Project Location
Incorporated Area
County Area
MARIPOSA COUNTY
MADERA COUNTY
MERCED COUNTY
FRESNO COUNTY
STANISLAUS COUNTY
SANTA CLARA COUNTY
SAN BENITO COUNTY
ATWATER
MERCED
MODESTO
CERES
TURLOCK
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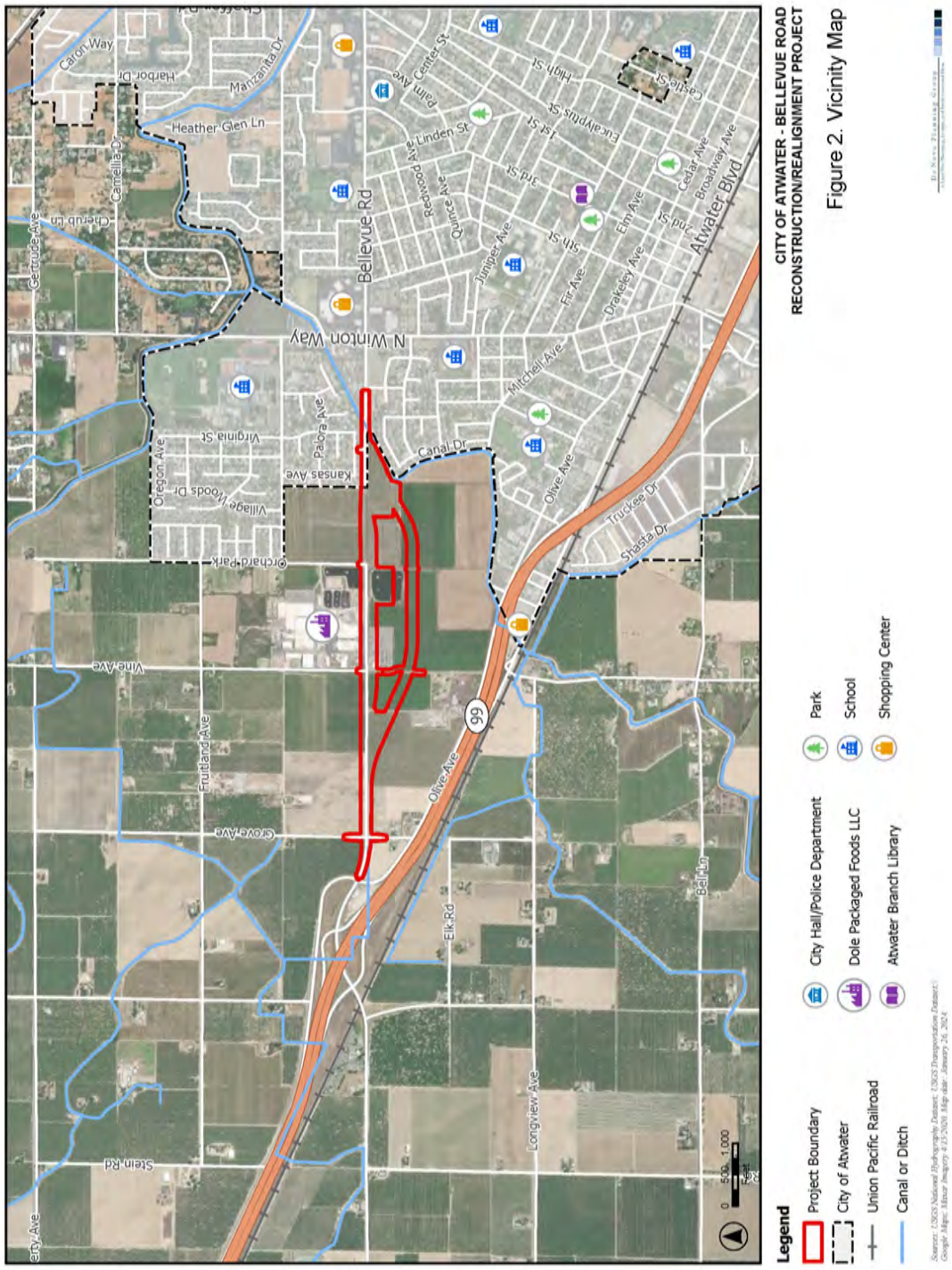
CITY OF ATWATER - BELLEVUE ROAD RECONSTRUCTION/REALIGNMENT PROJECT
Figure 2. Vicinity Map
Legend
Project Boundary
City of Atwater
Union Pacific Railroad
Canal or Ditch
City Hall/Police Department
Dole Packaged Foods LLC
Atwater Branch Library
Park
School
Shopping Center
Bellevue Rd
N Winton Way
Atwater Blvd
Olive Ave
Canal Dr
Mitchell Ave
Juniper Ave
Redwood Ave
Quince Ave
Linden St
Palm Ave
Center St
Elm Ave
Drakeley Ave
Cedar Ave
Broadway Ave
Fir Ave
Olive Ave
Truckee Dr
Shasta Dr
Pabra Ave
Kansas Ave
Virginia St
Oregon Ave
Village Woods Dr
Orchard Park
Vine Ave
Fruitland Ave
Grove Ave
Elk Rd
Bell Ln
Longview Ave
Stein Rd
Heather Glen Ln
Manzanita Dr
Harbor Dr
Caron Way
Camellia Dr
Cherub Ln
Gertrude Ave
99
0 500 1,000 Feet

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Figure 3. Aerial View of Project

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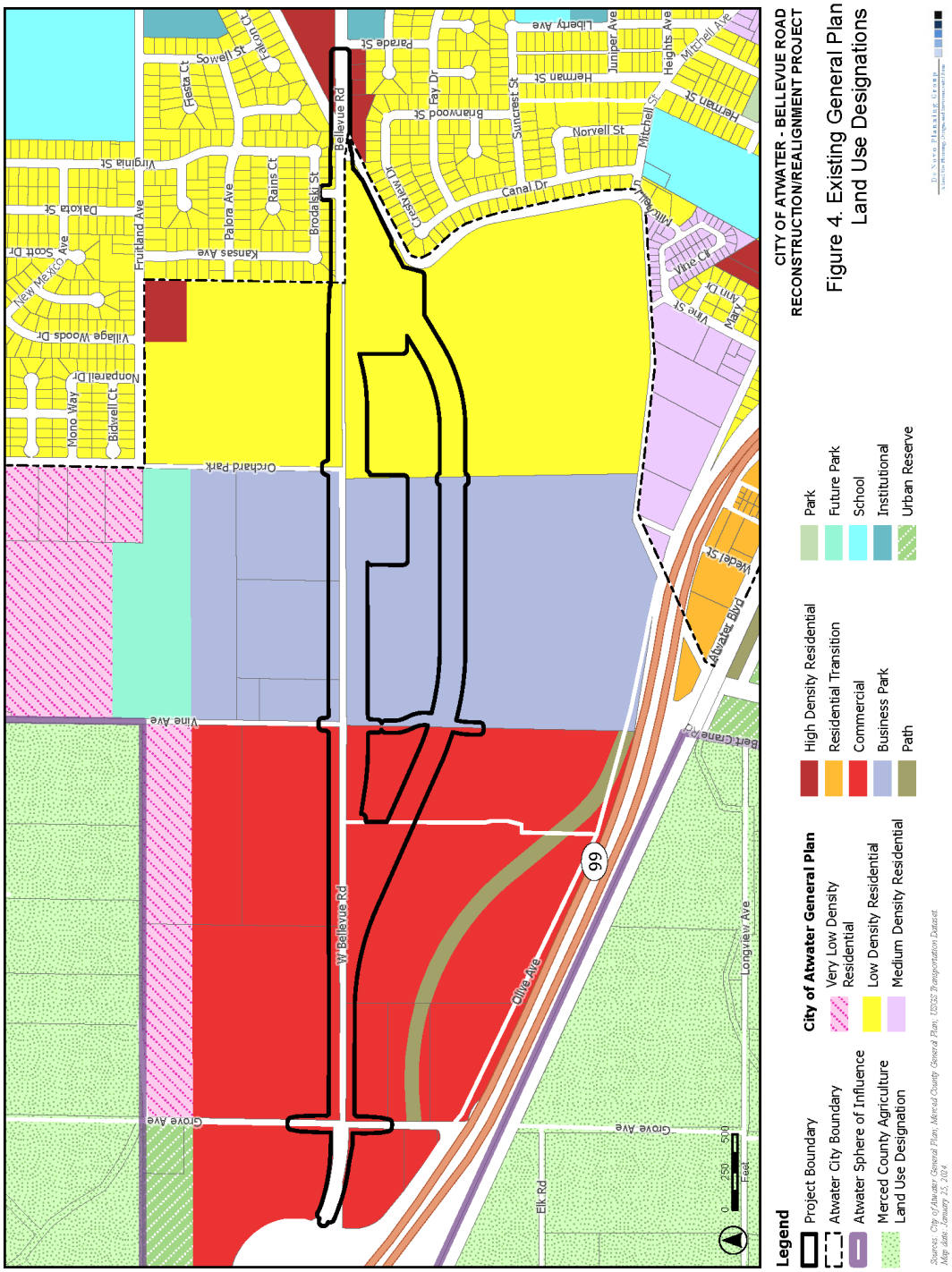
CITY OF ATWATER - BELLEVUE ROAD RECONSTRUCTION/REALIGNMENT PROJECT
Figure 4. Existing General Plan Land Use Designations
Legend
Project Boundary
Atwater City Boundary
Atwater Sphere of Influence
Merced County Agriculture Land Use Designation
City of Atwater General Plan
Very Low Density Residential
Low Density Residential
Medium Density Residential
High Density Residential
Residential Transition
Commercial
Business Park
Path
Park
Future Park
School
Institutional
Urban Reserve
Bellevue Rd
W Bellevue Rd
Olive Ave
Grove Ave
Elk Rd
Longview Ave
Vine Ave
Orchard Park
Atwater Blvd
Wedel St
Bert Crane Rd
Canal Dr
Norvell St
Suncrest St
Juniper Ave
Heights Ave
Mitchell Ave
Herman St
Liberty Ave
Parade St
Sowell St
Fiesta Ct
Falcon Ct
Fay Dr
Branwood St
Creekview Dr
Rains Ct
Pabra Ave
Brodaski St
Kansas Ave
Fruitland Ave
Dakota St
Virginia St
New Mexico Ave
Scott Dr
Village Woods Dr
Nonpareil Dr
Mono Way
Bidwell Ct
Vine Ct
Vine St
Mary Ann Dr
Feet
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500
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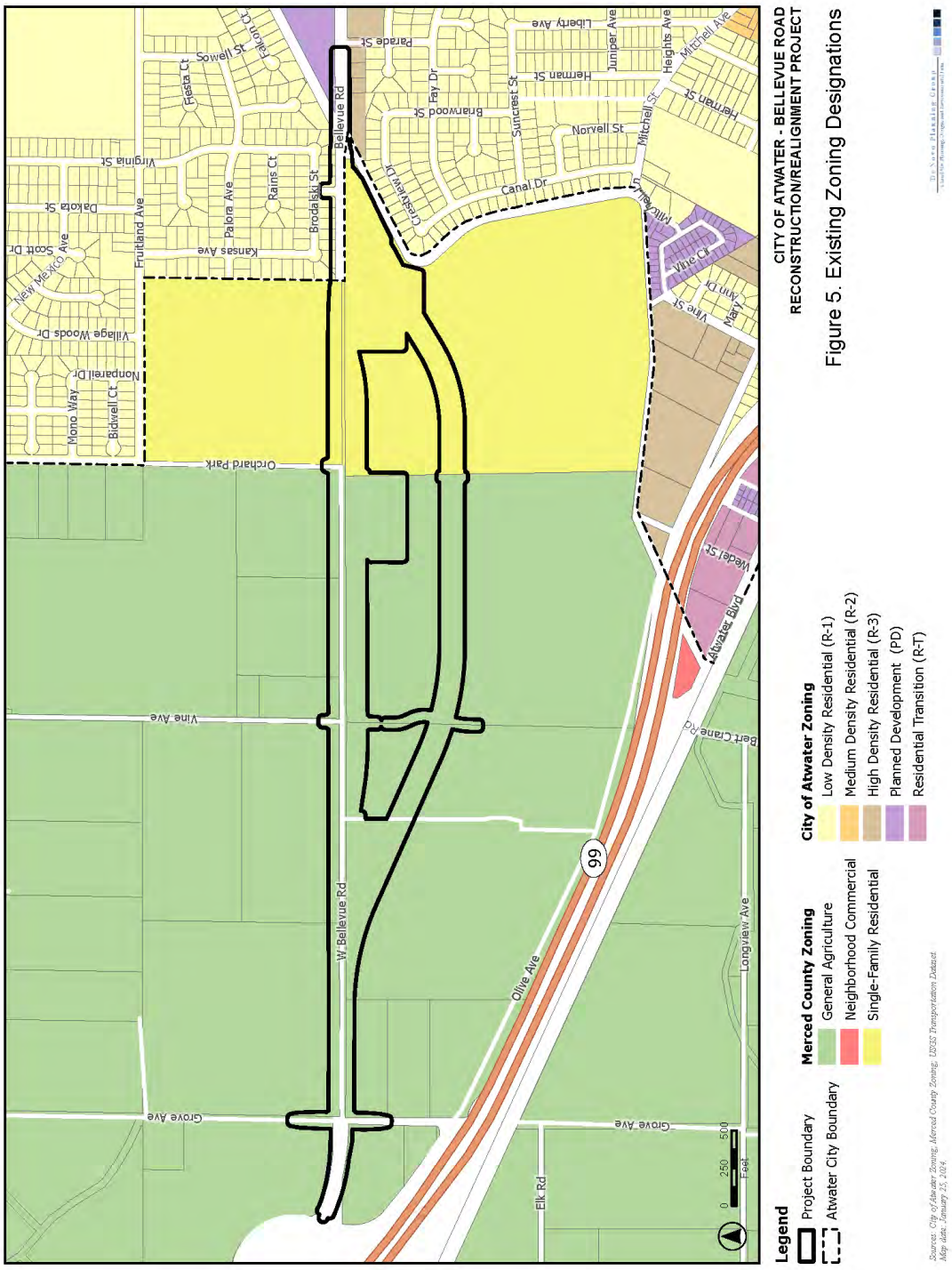

CITY OF ATWATER - BELLEVUE ROAD
RECONSTRUCTION/REALIGNMENT PROJECT
Figure 5. Existing Zoning Designations
Legend
Project Boundary
Atwater City Boundary
Merced County Zoning
General Agriculture
Neighborhood Commercial
Single-Family Residential
City of Atwater Zoning
Low Density Residential (R-1)
Medium Density Residential (R-2)
High Density Residential (R-3)
Planned Development (PD)
Residential Transition (R-T)
Bellevue Rd
W Bellevue Rd
Olive Ave
Vine Ave
Grove Ave
Elk Rd
Bert Crane Rd
Atwater Blvd
Longview Ave
Canal Dr
Norvell St
Mitchell St
Herman St
Juniper Ave
Heights Ave
Liberty Ave
Parade St
Orchard Park
Sowell St
Fiesta Ct
Tahoma Ct
Virginia St
Dakota St
Fruitland Ave
Kansas Ave
Palora Ave
Rains Ct
Brodelski St
Fay Dr
Branwood St
Suncrest St
Crestview Dr
Village Woods Dr
Nonpareil Dr
Mono Way
Bidwell Ct
Scott Dr
New Mexico Ave
Wedel St
Vine Ct
Vine St
Main St
99
0
250
500
Feet

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

None of the environmental factors listed below would have potentially significant impacts as a result of development of this project, as described on the following pages.

	Aesthetics		Agriculture and Forestry Resources		Air Quality
	Biological Resources		Cultural Resources		Energy
	Geology and Soils		Greenhouse Gasses		Hazards and Hazardous Materials
	Hydrology and Water Quality		Land Use and Planning		Mineral Resources
	Noise		Population and Housing		Public Services
	Recreation		Transportation		Tribal Cultural Resources
	Utilities and Service Systems		Wildfire		Mandatory Findings of Significance

DETERMINATION

On the basis of this initial evaluation:

	I find that the proposed Project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
X	I find that although the proposed Project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the proposed Project have been made by or agreed to by the proposed Project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
	I find that the proposed Project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
	I find that the proposed Project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
	I find that although the proposed Project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed Project, nothing further is required.

Signature Date

EVALUATION INSTRUCTIONS

1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., The proposed Project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., The proposed Project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.
4) "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from Section XVII, "Earlier Analyses," may be cross-referenced).
5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
    a) Earlier Analysis Used. Identify and state where they are available for review.
    b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
    c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the proposed Project.
6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
9) The explanation of each issue should identify:
    a) The significance criteria or threshold, if any, used to evaluate each question; and
    b) The mitigation measure identified, if any, to reduce the impact to less than significant.

EVALUATION OF ENVIRONMENTAL IMPACTS

In each area of potential impact listed in this section, there are one or more questions which assess the degree of potential environmental effect. A response is provided to each question using one of the four impact evaluation criteria described below. A discussion of the response is also included.

- Potentially Significant Impact. This response is appropriate when there is substantial evidence that an effect is significant. If there are one or more "Potentially Significant Impact" entries, upon completion of the Initial Study, an EIR is required.
- Less than Significant With Mitigation Incorporated. This response applies when the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact". The Lead Agency must describe the mitigation measures and briefly explain how they reduce the effect to a less than significant level.
- Less than Significant Impact. A less than significant impact is one which is deemed to have little or no adverse effect on the environment. Mitigation measures are, therefore, not necessary, although they may be recommended to further reduce a minor impact.
- No Impact. These issues were either identified as having no impact on the environment, or they are not relevant to the proposed Project.

ENVIRONMENTAL CHECKLIST

This section of the Initial Study incorporates the most current Appendix "G" Environmental Checklist Form contained in the CEQA Guidelines. Impact questions and responses are included in both tabular and narrative formats for each of the 21 environmental topic areas.

I. AESTHETICS

Would The proposed Project:	***Potentially Significant Impact***	***Less Than Significant with Mitigation Incorporation***	***Less Than Significant Impact***	***No Impact***
a) Have a substantial adverse effect on a scenic vista?			X	
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				X
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If The proposed Project is in an urbanized area, would the proposed Project conflict with applicable zoning and other regulations governing scenic quality?			X	
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?			X	

Responses to Checklist Questions

Responses a), c): The city of Atwater's visual features includes predominately urbanized and agricultural land uses. The General Plan identifies the city's scenic resources to be "open space areas" (i.e., agricultural lands) in addition to several City transportation routes designated as "scenic corridors." Bellevue Road is designated as a "scenic corridor" under the General Plan. The General Plan does not identify or designate "scenic vistas."

The Project site is generally flat and has been used for agriculture and currently contains orchards and open fields, as well as agricultural roads and buildings, parking areas, and water holding facility. There is a 157-acre Dole food processing plant located partly within the Project site. The main processing facility is located immediately north and adjacent to the Project site, while a parking area and water holding facility is located south of Bellevue Road within the Project site. The Dole facility uses Bellevue Road between Vine Avenue and Orchard Park Avenue as part of their agricultural products processing facility.

For analysis purposes, a scenic corridor can be discussed in terms of a foreground, middleground, and background viewshed. The middleground and background viewshed is often referred to as the broad viewshed. Examples of scenic resources can include mountain ranges, valleys, ridgelines, or water bodies from a focal point of the forefront of the broad viewshed, such as visually important trees, rocks, or historic buildings. An impact would generally occur if a project

would change the view to the middle ground or background elements of the broad viewshed, or remove the visually important trees, rocks, or historic buildings in the foreground.

Alternative I entails realigning Bellevue Road south of the Dole Packaged Foods campus between just west of Grove Avenue and the Atwater Canal and reconstruction/restriping between Gipson Street and Parade Street. Bellevue Road would be widened to four lanes beginning between Olive Avenue and Grove Avenue to the West and conform to the existing four-lane with a two-way left turn lane condition to the East. This alternative would convert some agricultural land to a roadway, but would not otherwise impact the existing Dole facility.

Alternative II entails widening along the existing Bellevue Road alignment between Grove Avenue and the Atwater Canal and reconstruction/restriping between Gipson Street and Parade Street. Bellevue Road would be widened to four lanes beginning between Olive Avenue and Grove Avenue to the West and conform to the existing four-lane with a two-way left turn lane condition to the East. This alternative would limit the conversion of agricultural land, by upgrading the existing roadway. This alternative would not adversely affect the visual character of the Dole facility.

Alternative III entails realigning Bellevue Road just south of the Dole Packaged Foods campus and the existing roadway alignment between just west of Grove Avenue and the Atwater Canal and reconstruction/restriping between Gipson Street and Parade Street. Bellevue Road would be widened to four lanes beginning between Olive Avenue and Grove Avenue to the West and conform to the existing four-lane with a two-way left turn lane condition to the East. This alternative would convert some agricultural land to a roadway, but would not otherwise impact the existing Dole facility like the Alternative I.

The proposed Project would not significantly disrupt middleground or background views from public viewpoints. Moreover, the proposed Project would not result in noticeable changes to the foreground views from the public viewpoint, since the proposed Project is an infrastructure/roadway project. Overall, the visual qualities of the Project site would be very similar to the visual qualities that would exist after construction of the roadway regardless of the alternative selected.

Upon build-out, the proposed Project would be of similar visual character to the existing conditions. For motorists travelling along Bellevue Road, the new roadway would not present a significant visual change from the existing condition and would not present unexpected or otherwise unpleasant aesthetic values within the proposed Project vicinity. The City designated "scenic corridor" would have largely the same visual qualities at buildout. Therefore, implementation of the proposed Project would have a ***less than significant*** impact relative to this topic.

Response b): There are two (2) state- designated scenic highways in the County of Merced (portions of SR 152 and Interstate 5). These segments are not within city limits and thus, the City does not designate them as scenic resources. The Project site is not located within view of a state scenic highway. Therefore, the proposed Project would not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway. Implementation of the proposed Project would have ***no impact*** relative to this topic.

Response d): The existing segment of Bellevue Road through the proposed Project limits contains no existing lighting except the westernmost area near the SR99 Interchange and

easternmost area near the residential neighborhood. The final improvements have not been developed so it is not confirmed whether new street lighting would be installed as part of the reconstruction and realignment project. Ultimately, buildout of the roadway would be expected to have street lighting installed in accordance with the City's standards. Specifically, Atwater Municipal Code, contains specific, enforceable requirements and/or restrictions intended to prevent light and glare impacts (pursuant to Atwater Municipal Code Section 8.32.030, the City does not allow lights, lighted signs, or other devices that direct or reflect glare onto public right-of-way or neighboring properties). Nighttime construction activities are not anticipated to be required as part of construction. Therefore, implementation of the proposed Project would have a ***less than significant*** impact relative to this topic.

II. AGRICULTURE AND FORESTRY RESOURCES

Would The proposed Project:	***Potentially Significant Impact***	***Less Than Significant with Mitigation Incorporation***	***Less Than Significant Impact***	***No Impact***
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?			X	
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?			X	
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 1222(g)) or timberland (as defined in Public Resources Code section 4526)?				X
d) Result in the loss of forest land or conversion of forest land to non-forest use?				X
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?			X	

Responses to Checklist Questions

Responses a), b): The Project site includes land designated as Prime Farmland and Urban and Built-Up land, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program (FMMP) of the California Resources Agency (California Department of Conservation, 2018) and illustrated on Figure 6. The Project site is not under a Williamson Act contract (California Department of Conservation, 2018).

The Project site is designated as Low Density Residential, High Density Residential, Path/Park, Commercial, and Business Park by the Atwater General Plan Land Use Map and is currently zoned Residential Single-Family (R-1) and General Agriculture (A-1) by the Merced County Zoning Map. Most of the Project site is outside of the City of Atwater; but within its Sphere of Influence.

Alternative I

Alternative I entails realigning Bellevue Road south of the Dole Packaged Foods campus between just west of Grove Avenue and the Atwater Canal and reconstruction/restriping between Gipson Street and Parade Street. Bellevue Road would be widened to four lanes beginning between Olive Avenue and Grove Avenue to the West and conform to the existing four-lane with a two-way left turn lane condition to the East.

Alternative I would shift the roadway alignment about 750 feet south of the existing Bellevue Road. The proposed alignment would still cut through the Dole Packaged Foods agricultural land, but would not physically divide the parking areas from the plant buildings. This alternative also avoids impacts to the Dole basin locations.

Furthermore, Alternative I would include the development of three separate drainage basins, totaling 1.57 acres, 3.15 acres, and 1.08 acres, respectively. These drainage basins are identified

at various locations adjacent to the Atwater Canal and at either end of Bellevue Road within existing agricultural areas. The exact size of the basins is preliminary, as the project is in the early planning/engineering stage.

Overall, the realignment and widening of Bellevue Road and development of the three drainage basins would result in the permanent conversion of Prime Farmland to nonagricultural use, as shown on Figure 7. Like Alternatives II and III, portions of this alternative include existing infrastructure improvements, such as roads and the Atwater Canal to the east, which are currently developed and would not result in an additional conversion of agricultural use. However, where the realignment bends to the south, it would result in conversion of agricultural land. It is worth noting that of the three alternatives, by realigning Bellevue Road south of the Dole Packaged Foods campus, Alternative I would result in the conversion of the most agricultural land in comparison to all identified alternatives as it would introduce new infrastructure in areas where currently none exist. The City of Atwater currently does not have an adopted agricultural lands mitigation ordinance. The right-of-way acquisition required for the Bellevue Road Reconstruction/Realignment Project is in unincorporated Merced County and as an infrastructure project and public use it is exempt from agricultural mitigation under Merced County agricultural mitigation fee program[1].

Implementation of the proposed Project under Alternative I would have a ***less than significant*** impact relative to this topic.

Alternative II

Alternative II entails widening along the existing Bellevue Road alignment between Grove Avenue and the Atwater Canal and reconstruction/restriping between Gipson Street and Parade Street. Bellevue Road would be widened to four lanes beginning between Olive Avenue and Grove Avenue to the West and conform to the existing four-lane with a two-way left turn lane condition to the East.

In comparison to Alternative I, the proposed Alternative II alignment reduces impacts to agricultural lands by reducing the overall footprint of the proposed Project from 20.15 acres to 18.45 acres by widening the existing Bellevue Road, as shown on Figure 8. In addition, Alternative II includes the development of two drainage basins, totaling 1.38 acres and 2.63 acres, respectively. These drainage basins are identified at either end of Bellevue Road within existing agricultural areas, like Alternative I. The exact size of the basins is preliminary, as the project is in the early planning/engineering stage.

Overall, while the cumulative impact on agricultural lands is reduced by the smaller project footprint in comparison to Alternative I, the widening of the existing Bellevue Road and development of the two drainage basins would result in the permanent conversion of Prime Farmland to nonagricultural use. Like Alternatives I and III. portions of this alternative include existing infrastructure improvements, such as roads and the Atwater Canal to the east, which are currently developed and would not result in an additional conversion of agricultural use. This alternative would be an expansion of existing infrastructure, but largely within an already developed area, unlike Alternative I which would result in expansion of infrastructure into agricultural land. The City of Atwater currently does not have an adopted agricultural lands mitigation ordinance. The right-of-way acquisition required for the Bellevue Road Reconstruction/Realignment Project is in unincorporated Merced County and as an

[1] Personal Communication with Michael Hayes, PE, Contract Engineer, City of Atwater. February 13, 2024.

infrastructure project and public use it is exempt from agricultural mitigation under Merced County agricultural mitigation fee program[2].

Implementation of the proposed Project under Alternative II would have a ***less than significant*** impact relative to this topic.

Alternative III

Alternative III entails realigning Bellevue Road just south of the Dole Packaged Foods campus and the existing roadway alignment between just west of Grove Avenue and the Atwater Canal and reconstruction/restriping between Gipson Street and Parade Street. Bellevue Road would be widened to four lanes beginning between Olive Avenue and Grove Avenue to the West and conform to the existing four-lane with a two-way left turn lane condition to the East.

In comparison to Alternative I, the proposed Alternative III alignment reduces impacts to agricultural land by reducing the overall footprint of the proposed Project to 18.08 acres. In comparison to Alterative II, Alternative III would have a slightly greater impact to agricultural land by realigning and widening Bellevue Road to just south of the existing Bellevue Road, expanding the area of new development. In addition, Alternative III includes the development of two drainage basins, totaling 1.25 acres and 1.18 acres respectively. These drainage basins are identified at either end of Bellevue Road within existing agricultural areas, like Alternative II. The exact size of the basins is preliminary, as the project is in the early planning/engineering stage. Alternative III also includes the reconstruction of an existing drainage basin adjacent to the Dole Packaged Foods campus, of which would be modified to a total of 3.05 acres, as shown on Figure 9.

Overall, while the cumulative impact on agricultural lands is reduced by the smaller project footprint in comparison to Alternative I, the realignment and widening of the existing Bellevue Road, development of the two drainage basins, and reconstruction of an existing basin would result in the permanent conversion of Prime Farmland to nonagricultural use. However, portions of this alternative include existing infrastructure improvements, such as roads and the Atwater Canal to the east, which are currently developed and would not result in an additional conversion of agricultural use. This alternative would be realignment of existing roadway and infrastructure, including an abandonment of a portion of Bellevue Road. The realignment is largely within, or immediately adjacent too, an already developed area, unlike Alternative I which would result in expansion of infrastructure into agricultural land. The City of Atwater currently does not have an adopted agricultural lands mitigation ordinance. The right-of-way acquisition required for the Bellevue Road Reconstruction/Realignment Project is in unincorporated Merced County and as an infrastructure project and public use it is exempt from agricultural mitigation under Merced County agricultural mitigation fee program[3].

Implementation of the proposed Project under Alternative III would have a ***less than significant*** impact relative to this topic.

Response c): The Project site is not forest land (as defined in Public Resources Code section 1222(g)) or timberland (as defined in Public Resources Code section 4526). The proposed Project

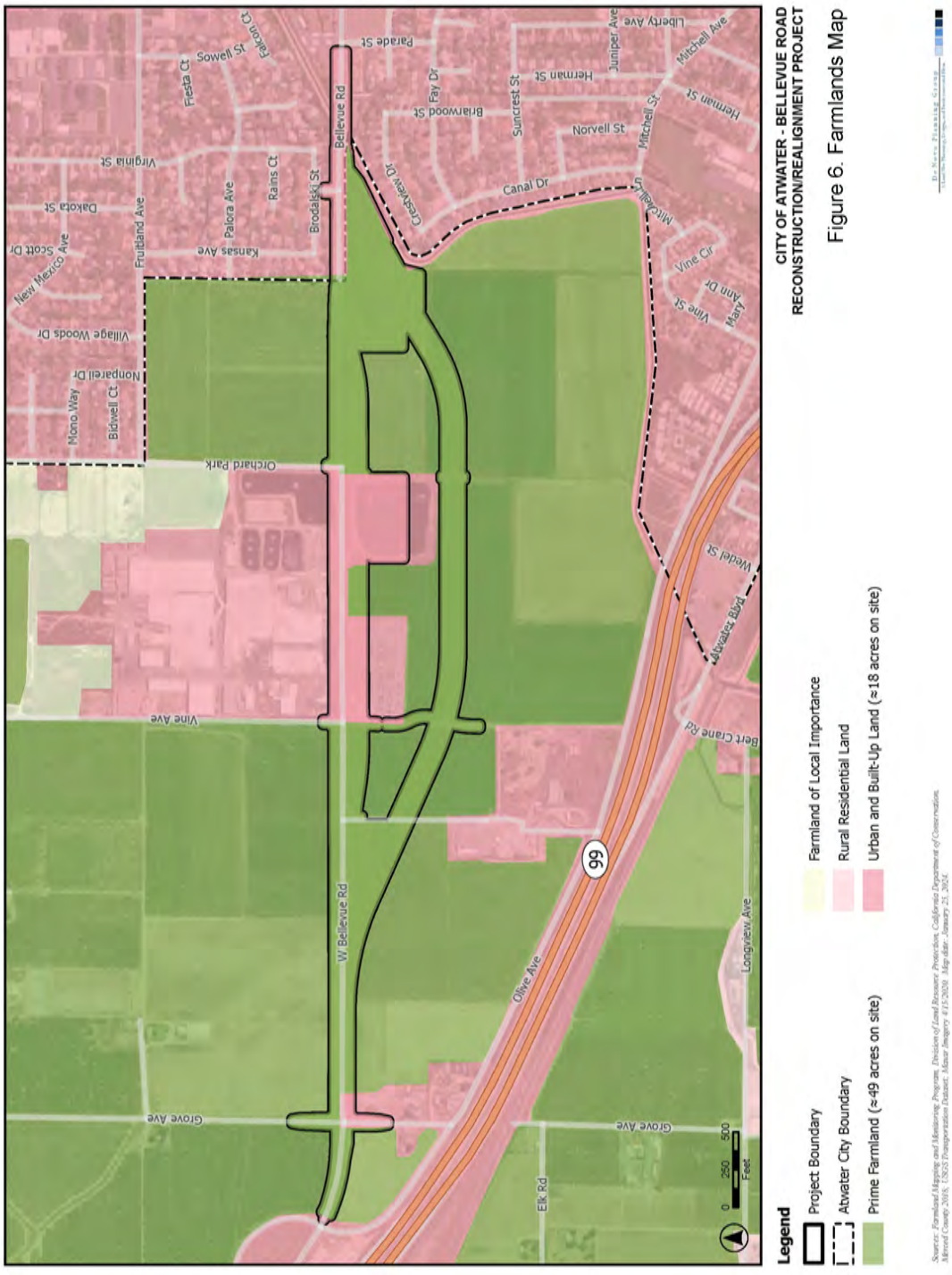
[2] Personal Communication with Michael Hayes, PE, Contract Engineer, City of Atwater. February 13, 2024.

[3] Personal Communication with Michael Hayes, PE, Contract Engineer, City of Atwater. February 13, 2024.

would not conflict with existing zoning for, or cause rezoning of, forest land or timberland. Implementation of the proposed Project would have ***no impact*** relative to this issue.

Response d): The Project site is not forest land. The proposed Project would not result in the loss of forest land or conversion of forest land to non-forest use. Implementation of the proposed Project would have ***no impact*** relative to this issue.

Response e): The Project site does not contain forest land, and there is no forest land in the vicinity of the Project site. The proposed Project would result in a conversion of the land that is currently zoned as agricultural land to non-farmland. However, the proposed Project would not involve any other changes in the existing environment not disclosed under the previous responses which, due to their location or nature, could result in conversion of farmland to non-agricultural use, or conversion of forest land to non-forest use. Therefore, the proposed Project would have a ***less than significant*** impact relative to this issue.


CITY OF ATWATER - BELLEVUE ROAD RECONSTRUCTION/REALIGNMENT PROJECT
Figure 6. Farmlands Map
Legend
Project Boundary
Atwater City Boundary
Prime Farmland (≈49 acres on site)
Farmland of Local Importance
Rural Residential Land
Urban and Built-Up Land (≈18 acres on site)
Bellevue Rd
W Bellevue Rd
Olive Ave
Vine Ave
Grove Ave
Longview Ave
Elk Rd
Bert Crane Rd
Atwater Blvd
Wedel St
Canal Dr
Norvell St
Parade St
Sowell St
Fiesta Ct
Falcon Ct
Virginia St
Dakota St
Scott Dr
New Mexico Ave
Fruitland Ave
Kansas Ave
Palora Ave
Rains Ct
Brodajski St
Orchard Park
Village Woods Dr
Nonpareil Dr
Mono Way
Bidwell Ct
Fay Dr
Briarwood St
Suncrest St
Herman St
Juniper Ave
Liberty Ave
Mitchell Ave
Mitchell St
Crestview Dr
Vine Cir
Vine St
Ann Dr
Mary
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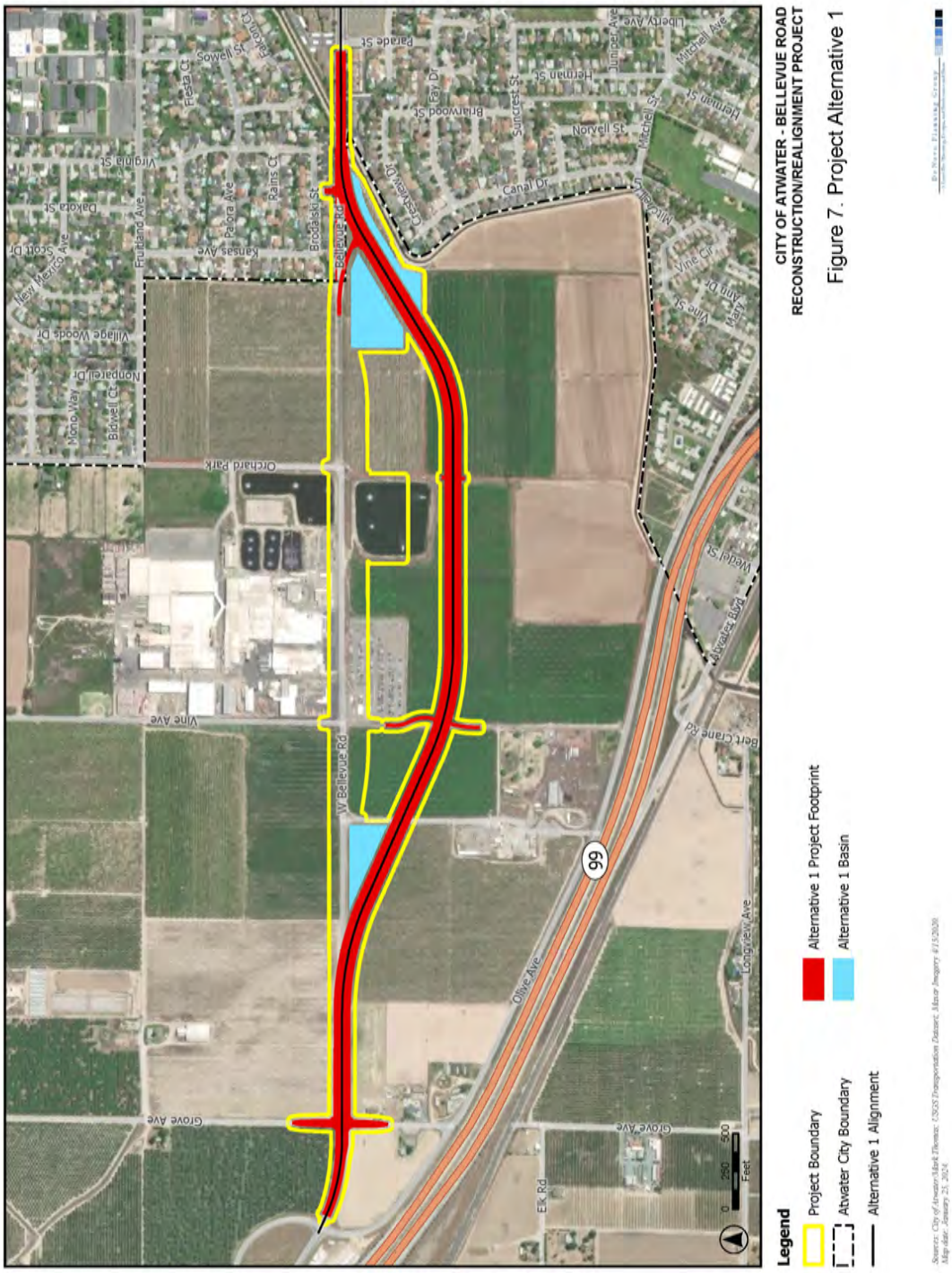
CITY OF ATWATER - BELLEVUE ROAD
RECONSTRUCTION/REALIGNMENT PROJECT
Figure 7. Project Alternative 1
Legend
Project Boundary
Atwater City Boundary
Alternative 1 Alignment
Alternative 1 Project Footprint
Alternative 1 Basin
Bellevue Rd
Vine Ave
Orchard Park
Olive Ave
Grove Ave
Longview Ave
Bert Crane Rd
Atwater Blvd
Wedel St
Canal Dr
Norvell St
Brandt Rd
Feet

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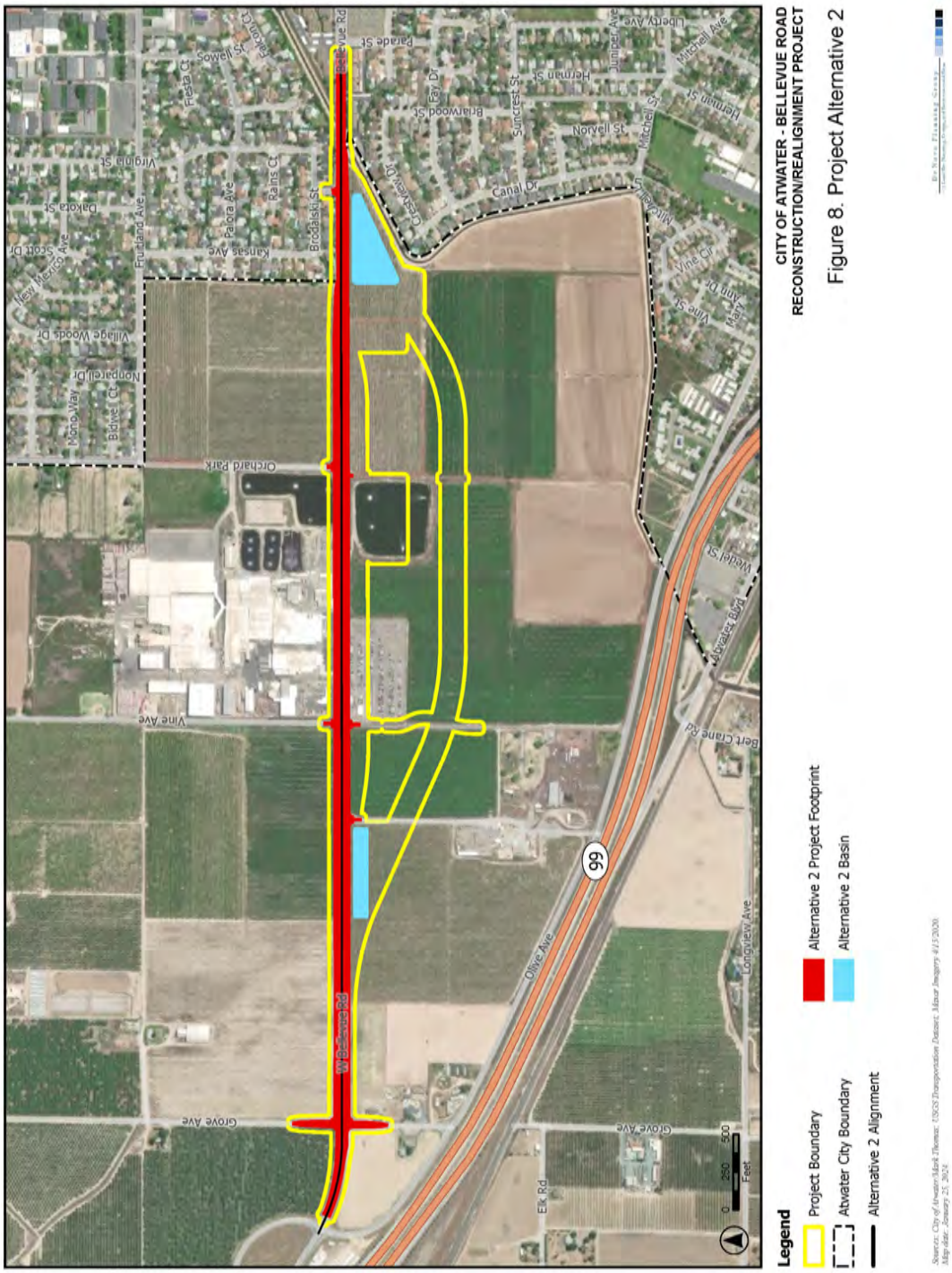
CITY OF ATWATER - BELLEVUE ROAD
RECONSTRUCTION/REALIGNMENT PROJECT
Figure 8. Project Alternative 2
Legend
Project Boundary
Atwater City Boundary
Alternative 2 Alignment
Alternative 2 Project Footprint
Alternative 2 Basin
Bellevue Rd
W Bellevue Rd
Vine Ave
Grove Ave
Olive Ave
Bert Crane Rd
Atwater Blvd
Westel St
Longview Ave
E M Rd
Orchard Park
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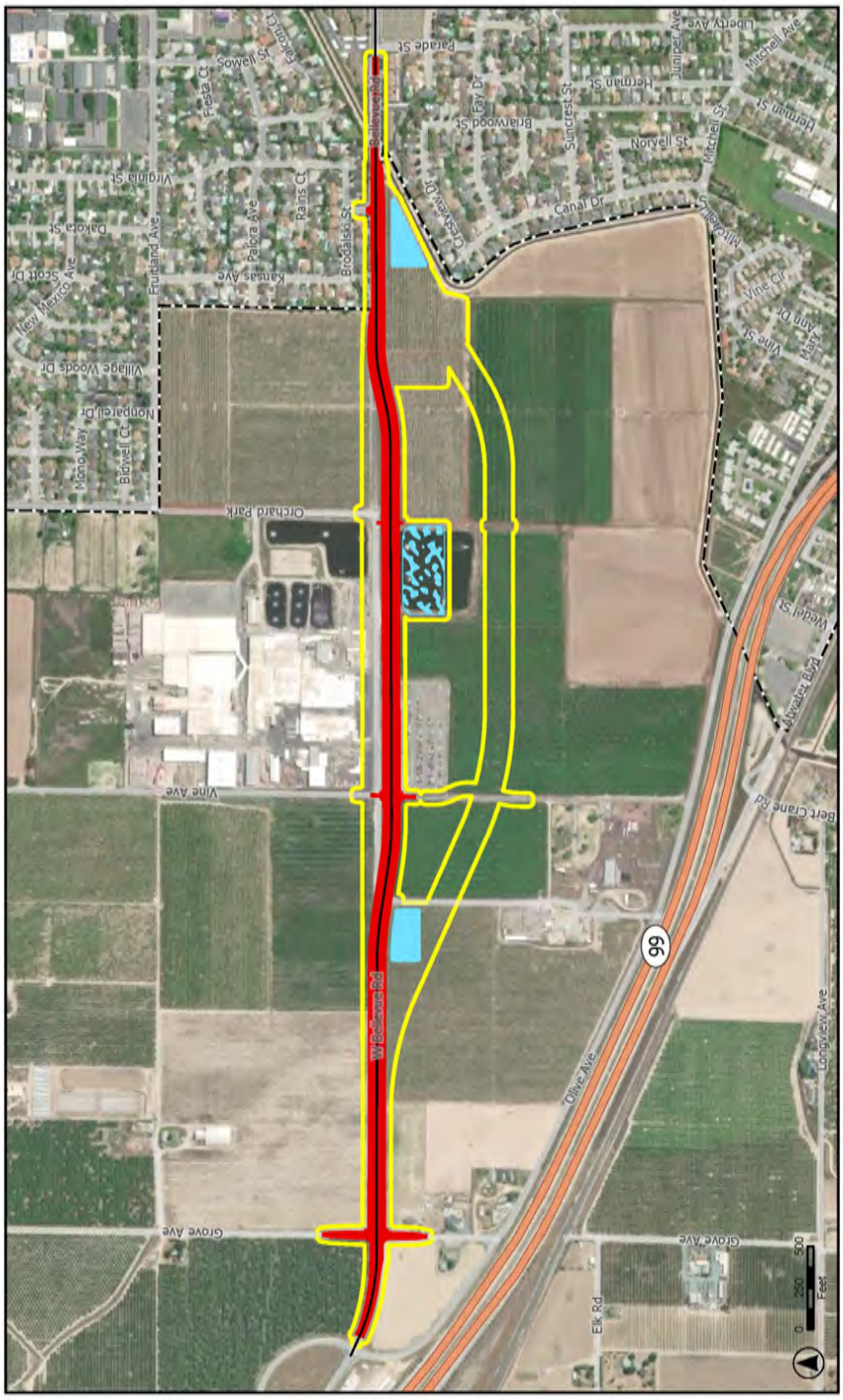
CITY OF ATWATER - BELLEVUE ROAD
RECONSTRUCTION/REALIGNMENT PROJECT
Figure 9. Project Alternative 3
Legend
Project Boundary
Atwater City Boundary
Alternative 3 Alignment
Alternative 3 Project Footprint
Alternative 3 Basin
Alternative 3 Basin to be Reconstructed
Bellevue Rd
Vine Ave
Olive Ave
Grove Ave
Elk Rd
Orchard Park
Longview Ave
Bert Crane Rd
Atwater Blvd
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III. AIR QUALITY

Would The proposed Project:	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Conflict with or obstruct implementation of the applicable air quality plan?		X		
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the proposed Project region is non-attainment under an applicable federal or state ambient air quality standard?		X		
c) Expose sensitive receptors to substantial pollutant concentrations?			X	
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?			X	

Existing Setting

The Project site is located within the San Joaquin Valley Air Pollution Control District (SJVAPCD). This agency is responsible for monitoring air pollution levels and ensuring compliance with federal and state air quality regulations within the San Joaquin Valley Air Basin (SJVAB) and has jurisdiction over most air quality matters within its borders.

Responses to Checklist Questions

Responses a), b): Air quality emissions would be generated during construction of the proposed project. However, unlike a development project, an infrastructure/roadway project does not have a traditional daily trip generation (Fehr & Peers, 2020); the traffic consultant, Fehr & Peers, have identified the overall traffic would be reduced with implementation of the proposed project (see *Section XVII. Transportation* of this IS/MND for further detail). Therefore, the proposed Project operational emissions would also be reduced, given that mobile source emissions are correlated to vehicle miles traveled. Further discussion of construction-related air quality impacts is provided below.

The SJVAB is in non-attainment for ozone, PM_{10}, and $PM_{2.5}$, which means that certain pollutants' exposure levels are often higher than the normal air quality requirements. The requirements have been set to protect public health, particularly the health of vulnerable populations. Therefore, if the concentration of those contaminants exceeds the norm, some susceptible individuals in the population are likely to experience health effects.

The SJVAPCD's approach to analysis of construction impacts is to require implementation of effective and comprehensive control measures, rather than to require detailed quantification of emission concentrations for modeling of direct impacts. PM_{10} emitted during construction 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, making quantification difficult. Despite this variability in emissions, experience has shown that there are several feasible control measures that can be reasonably implemented to significantly reduce PM_{10} emissions from construction activities. The SJVAPCD has determined that, on its own, compliance with Regulation VIII for all sites and implementation of all other control measures indicated in Tables 6-2 and 6-3 of the SJVAPCD's Guide for Assessing and Mitigating Air Quality Impacts (as

appropriate) would constitute sufficient mitigation to reduce construction PM_{10} impacts to a level considered less than significant.

Construction would result in numerous activities that would generate dust. The fine, silty soils in the Project area and often strong afternoon winds exacerbate the potential for dust, particularly in the summer months. Impacts would be localized and variable. Construction impacts would last for a period of a few weeks to a few months. The initial phase of project construction would involve grading and site preparation activities, followed by paving. Construction activities that could generate dust and vehicle emissions are primarily related to grading, soil excavation, and other ground-preparation activities.

Control measures are required and enforced by the SJVAPCD under Regulation VIII. The SJVAPCD considers construction-related emissions from all projects in this region to be mitigated to a less than significant level if SJVAPCD-recommended PM_{10} fugitive dust rules and equipment exhaust emissions controls are implemented. The proposed Project would be required to comply with all applicable measures from SJVAPCD Regulation VIII. In addition, the proposed Project would also implement Mitigation Measure AIR-1. Therefore, with implementation of Mitigation Measure AIR-1, the proposed project would have a ***less than significant*** impact related to the potential to conflict with or obstruct implementation of the applicable air quality plan, or to result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable federal or state ambient air quality standard.

Mitigation Measure

Mitigation Measure AIR-1*: Prior to issuance of grading permits, as applicable, the project applicant shall provide information to the City of Atwater describing the methods by which the following measures would be complied with:*

- *Off-road equipment used onsite shall achieve a fleet-average emissions equal to or less than the Tier II emissions standard of 4.8 grams of NOx per horsepower hour. This can be achieved through any combination of uncontrolled engines and engines complying with Tier II and above engine standards. Tier II emission standards are set forth in Section 2423 of Title 13 of the California Code of Regulations, and Part 89 of Title 40 Code of Federal Regulations.*
- *Construction equipment shall be properly maintained at an offsite location; maintenance shall include proper tuning and timing of engines. Equipment maintenance records and data sheets of equipment design specifications shall be kept on-site during construction.*
- *Onsite construction equipment shall not idle for more than 5 minutes in any one hour.*
- *Construction workers shall be encouraged to carpool to and from the construction site to the greatest extent practical. Workers shall be informed in writing and a letter shall be placed on file in the City office documenting efforts to carpool.*

Response c): Sensitive receptors are defined as people that have an increased sensitivity to air pollution or environmental contaminants. Sensitive receptor locations include schools, parks and playgrounds, day care centers, nursing homes, hospitals, and residential dwelling unit(s). The nearest sensitive receptors to the Project site are single-family residential dwelling units and located immediately adjacent of the site to the east of all identified alternatives, within City Limits. As stated under criteria a) and b) above, emissions during construction or operations would not reach the significance thresholds and are not anticipated to result in concentrations that reach or surpass ambient air quality requirements.

Further, anticipated development that would result from Project implementation would not be uses that would generate toxic emissions (i.e., Type A uses identified by the CAPCOA guidelines). Although emissions would be emitted during construction of the site (i.e., through diesel fuel and exhaust from equipment), emissions would be temporary and last only during construction activities. In addition, construction activities would be required to comply with all applicable rules and regulations administered by the SJVAPCD including but not limited to Regulation VIII (Fugitive PM10 Prohibitions), Rule 4102 (Nuisance), and Rule 4641 (Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations). As such, implementation of the proposed Project, under all identified alternatives, would have a ***less than significant*** impact on nearby sensitive receptors.

Response d): Specific uses and operations that are considered sources of undesirable odors include landfills, transfer stations, composting facilities, sewage treatment plants, wastewater pump stations, asphalt batch plants and rendering plants. The SJVAPCD regulates odors through Rule 4102 (Nuisance). The proposed Project would not consist of such land uses; rather, implementation of the proposed Project would facilitate a reconstruction and/or realignment of an existing infrastructure and thus is unlikely to produce odors that would be considered to adversely affect a substantial number of people. Any odors during the construction of the road would be regulated under Rule 4102 (Nuisance). As such, implementation of the proposed Project, under all identified alternatives, would have a ***less than significant*** impact relative to this topic.

IV. BIOLOGICAL RESOURCES

Would The proposed Project:	***Potentially Significant Impact***	***Less Than Significant with Mitigation Incorporation***	***Less Than Significant Impact***	***No Impact***
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?		X		
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?				X
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				X
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?			X	
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?			X	
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				X

Regional Setting

The City of Atwater is within the central eastern portion of the San Joaquin Valley. At the onset of modern settlement in the mid-19th century, the area consisted of grassland with scattered oaks. Scattered vernal pools were also present on the higher terraces adjacent to the foothills of the Sierra Nevada mountain range. Most of the natural vegetation in the area has been removed for urban and agricultural land uses, and the only large area of natural vegetation remaining is north of the former Castle Air Force Base site. There are also some known biological resources in east Atwater (emergent marsh) and in southeast Atwater (riparian scrub).

The Project site is relatively flat and includes primarily land that has been historically used as agricultural land, with exception of the existing infrastructure improvements (such as Bellevue Road) and Dole food processing facility. Topographic features within the Project site include the artificial riverine Atwater Canal near the eastern end of the Project site, agricultural irrigation ditches along the western end of Bellevue Road, and 5 freshwater detention basins adjacent to the Dole food processing facility at the center the Project site. Each freshwater pond consists of surface flooding hydrology and is artificially excavated. The irrigation ditches are man-made isolated facilities with the sole purpose of agricultural irrigation. Other than the Atwater Canal,

agricultural irrigation ditches, and the Dole facility freshwater detention basins, there are no other water bodies within the vicinity of the Project site, as shown in Figure 10. The Project site does not contain protected wetlands or other jurisdictional areas and there is no need for permitting associated with the federal or state Clean Water Acts.

The existing biotic conditions and resources of the Project site can be defined primarily as agricultural with a majority of the Project site containing row crops. Agricultural and ruderal vegetation found throughout the Project site provides habitat for both common and a few special-status wildlife populations. For example, some commonly observed wildlife species in the region include: California ground squirrel (*Spermophilus beecheyi*), California vole (*Microtus californicus*), coyote (*Canis latrans*), raccoon (*Procyon lotor*), opossum (*Didelphis virginiana*), striped skunk (*Mephitis mephitis*), red-tailed hawk (*Buteo jamaicensis*), northern harrier (*Circus cyaneus),* American kestrel (*Falco sparverius*), white-tailed kite (*Elanus leucurus*), American killdeer (*Charadrius vociferus*), gopher snake (*Pituophis melanoleucus*), garter snake (*Thamnophis species*), and western fence lizard (*Sceloporus occidentalis*), as well as many native insect species. There are also several bat species in the region. Bats often feed on insects as they fly over agricultural and natural areas.

Locally common and abundant wildlife species are important components of the ecosystem. Due to habitat loss, many of these species must continually adapt to using agricultural, ruderal, and ornamental vegetation for cover, foraging, dispersal, and nesting.

Responses to Checklist Questions

Response a): The following discussion is based on a background search of special-status species that are documented in the California Natural Diversity Database (CNDDB). The background search was regional in scope and focused on the documented occurrences of special-status species within 9-quad of the Project site. Figure 11 provides a map of documented CNDDB occurrences within a 1-mile radius search of the Project site.

Special Status Species

The California Department of Fish and Wildlife's Natural Diversity Database indicates five (5) federally listed, state listed, or special-status wildlife and plant species that have been observed in the Atwater Quad, inclusive of the Project site: Swainson's hawk, tricolored blackbird, vernal pool fairy shrimp, San Joaquin kit fox, and Colusa grass. Though a San Joaquin kit fox occurrence was observed in 1999, it is not expected to occur on the Project site given the lack of denning habitat. The occurrence area is now developed with residential uses and the Project site highly disturbed, the potential for kit fox to occur within or near the Project site is very low. In addition, there are no known special-status species in the vicinity of the Project site. The Atwater General Plan does not identify any special-status wildlife or plant species in the Project area or within the Project's immediate vicinity. Furthermore, the CNDDB search documented in Figure 11 does not include any occurrences of special status species within the Project site. The CNDDB does however note, that non-specific animal species occurrences have been within 1-mile of the Project site. The occurrences shown on Figure 11 represent the known locations of non-specific animal species. There may be additional occurrences or additional species within this area which have not been surveyed and/or mapped. Lack of information in the CNDDB about a species or an area can never be used as proof that no special status species occur in an area.

Alternative I

Alternative I entails realigning Bellevue Road south of the Dole Packaged Foods campus between just west of Grove Avenue and the Atwater Canal and reconstruction/restriping between Gipson Street and Parade Street. Bellevue Road would be widened to four lanes beginning between Olive Avenue and Grove Avenue to the West and conform to the existing four-lane with a two-way left turn lane condition to the East. Alternative I would also include the development of three separate drainage basins, totaling 1.57 acres, 3.15 acres, and 1.08 acres, respectively. The exact size of the basins is preliminary, as the project is in the early planning/engineering stage. Overall, this alternative would convert more undeveloped arable land into a roadway in comparison to the other identified alternatives. It is notable that most of the land to be converted is farmland that is regularly disturbed and not high-quality habitat for special status species. Nevertheless, the risk of adverse effect on biological resources and special status species with Alternative I is greater when compared to Alternative II and III.

Alternative II

Alternative II entails widening along the existing Bellevue Road alignment between Grove Avenue and the Atwater Canal and reconstruction/restriping between Gipson Street and Parade Street. Bellevue Road would be widened to four lanes beginning between Olive Avenue and Grove Avenue to the West and conform to the existing four-lane with a two-way left turn lane condition to the East. In addition, Alternative II includes the development of two drainage basins, totaling 1.38 acres and 2.63 acres, respectively. The exact size of the basins is preliminary, as the project is in the early planning/engineering stage. In comparison to Alternative I, the proposed Alternative II alignment reduces impacts to Dole Packaged Foods agricultural land but introduces impacts to their basin locations, parking lots and buildings. The Dole International pond on the north side of Bellevue would be affected by this alignment, which would require regrading and relocating the pond. Overall, Alternative II would reduce the amount of undeveloped agricultural land converted (i.e. reduced habitat conversion) when compared to the Alternative I and III. This represents less risk of adverse effect on biological resources and special status species with this alternative when compared to Alternative I and III.

Alternative III

Alternative III entails realigning Bellevue Road just south of the Dole Packaged Foods campus and the existing roadway alignment between just west of Grove Avenue and the Atwater Canal and reconstruction/restriping between Gipson Street and Parade Street. Bellevue Road would be widened to four lanes beginning between Olive Avenue and Grove Avenue to the West and conform to the four lanes with a two-way left turn lane condition to the East. In addition, Alternative III includes the development of two drainage basins, totaling 1.25 acres and 1.18 acres respectively. The exact size of the basins is preliminary, as the project is in the early planning/engineering stage. In comparison to Alternative I, the proposed Alternative III alignment reduces impacts to Dole Packaged Foods agricultural land but introduces impacts to their basin locations, parking lots and buildings, similar to alternative II. In addition, Alternative III also includes the reconstruction of an existing drainage basin adjacent to the Dole Packaged Foods campus, which would be modified to a total of 3.05 acres. This alternative would reduce impacts to Dole Packaged Foods agricultural land compared to Alternative I, but would have slightly more land conversion than Alternative II.

Conclusion

The Project site is surrounded primarily by residential, industrial, and agricultural uses. The Project site is mostly agricultural land that is regularly disturbed and is not high-quality habitat

for special status species. Based on records search, literature reviews, and site surveys, it has been determined that no special-status species are expected to be adversely affected by the proposed Project. Nevertheless, a mitigation measure is presented to require a preconstruction survey of the area to be disturbed prior to construction. The survey would serve as a final verification of the determination that no special status species would be adversely affected. With implementation of Mitigation Measure BIO-1, the proposed Project under all identified alternatives would have a ***less than significant*** impact relative to this topic.

Mitigation Measure

Mitigation Measure BIO-1*: Prior to commencement of any grading activities, a pre-construction survey shall be conducted by a qualified biologist. The survey shall cover the Project site plus a 500 – foot buffer to include pedestrian surveys achieving 100 percent visual coverage.*

Responses b): There are no riparian habitats or other sensitive natural communities identified on the Project site, under all identified alternatives, therefore the proposed Project would have ***no impact*** on riparian habitats or natural communities.

Response c): The Project site does not contain protected wetlands or other jurisdictional areas and there is no need for permitting associated with the federal or state Clean Water Acts. The irrigation channel, the Atwater Canal, located near the eastern end of the Project site is a man-made facility with the sole purpose of agricultural irrigation. Absent any wetlands or jurisdictional waters, implementation of the proposed Project, under all identified alternatives, would have ***no impact*** relative to this topic.

Response d): Wildlife movement corridors are linear habitats that function to connect two (2) or more areas of significant wildlife habitat. These corridors may function on a local level as links between small habitat patches (e.g., streams in urban settings) or may provide critical connections between regionally significant habitats (e.g., deer movement corridors).

Wildlife corridors typically include vegetation and topography that facilitate the movements of wild animals from one area of suitable habitat to another, to fulfill foraging, breeding, and territorial needs. These corridors often provide cover and protection from predators that may be lacking in surrounding habitats. Wildlife corridors generally include riparian zones and similar linear expanses of contiguous habitat.

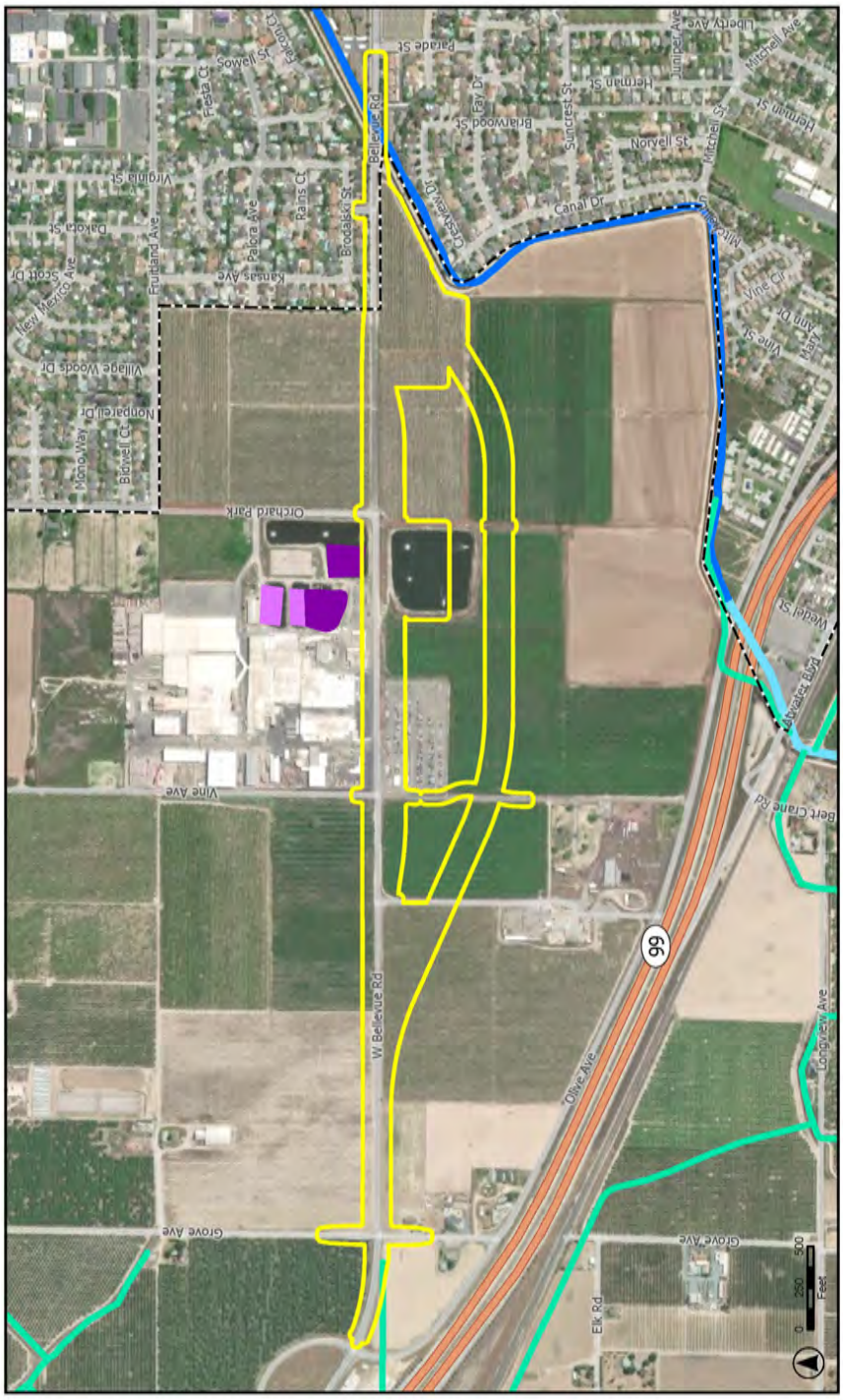
The CNDDB record search did not reveal any documented wildlife corridors or wildlife nursery sites on or adjacent to the Project site, under all identified alternatives. In addition, field surveys did not reveal the presence of any wildlife corridor or nursery site on or adjacent to the Project site. Therefore, the proposed Project would have a ***less than significant*** impact relative to this topic.

Responses e): The Atwater General Plan Open Space and Conservation Element includes policies related to conservation of biological resources. In addition, Chapter 12.32 of the Atwater Municipal Code (AMC) identifies the city's tree policies and Section 12.32.080 addresses new construction. Planting, maintenance, and removal of existing trees on the Project site would be subject to compliance with these standards and regulations. Since the Project site does not currently include any trees (other than orchard trees), the proposed Project is not subject to the submission of a tree protection plan (TPP). The proposed Project is consistent with City policies and ordinances.

The 2030 Merced County General Plan includes policies found in the Natural Resources Element. The relevant policies seek to protect sensitive habitat (vernal pools, wetlands, riparian, grasslands, migration corridors), special status species, and includes requirements for performing surveys and incorporating mitigation where necessary. A survey was performed as part of this study, and appropriate mitigation has been incorporated into the proposed Project. There are no sensitive habitats. The proposed Project is consistent with these policies.

As such, the proposed Project, under all identified alternatives, would have a ***less than significant*** impact.

Responses f): The Project site is within the PG&E San Joaquin Valley Operation and Maintenance Habitat Conservation Plan (HCP). The HCP covers PG&E's routine operations and maintenance activities and minor new construction, on any PG&E gas and electrical transmission and distribution facilities, easements, private access routes, or lands owned by PG&E. The proposed Project would not conflict or interfere with HCP. The proposed Project is also located in the planning area of the Recovery Plan for Upland Species of the San Joaquin Valley, which addresses recovery goals for several species. The proposed Project would not conflict with the plan since the Project site does not provide appropriate habitat for the species mentioned and would comply to applicable General Plan policies regarding habitat conservation. The City of Atwater, Merced County, and regional planning agency do not have any other adopted or approved plans for habitat or natural community conservation. For these reasons, the proposed Project, under all identified alternatives, would have ***no impact***.


CITY OF ATWATER - BELLEVUE ROAD
RECONSTRUCTION/REALIGNMENT PROJECT
Figure 10. Hydrography and Wetlands
Legend
Project Boundary
Atwater City Boundary
Cowardin Classifications
Freshwater Pond
PUBKx
PUSKx
Riverine
R2UBHx
R4SBCx
R5UBFx
Bellevue Rd
W Bellevue Rd
Vine Ave
Grove Ave
Olive Ave
Longview Ave
Bert Crane Rd
Elk Rd
Atwater Blvd
Orchard Park
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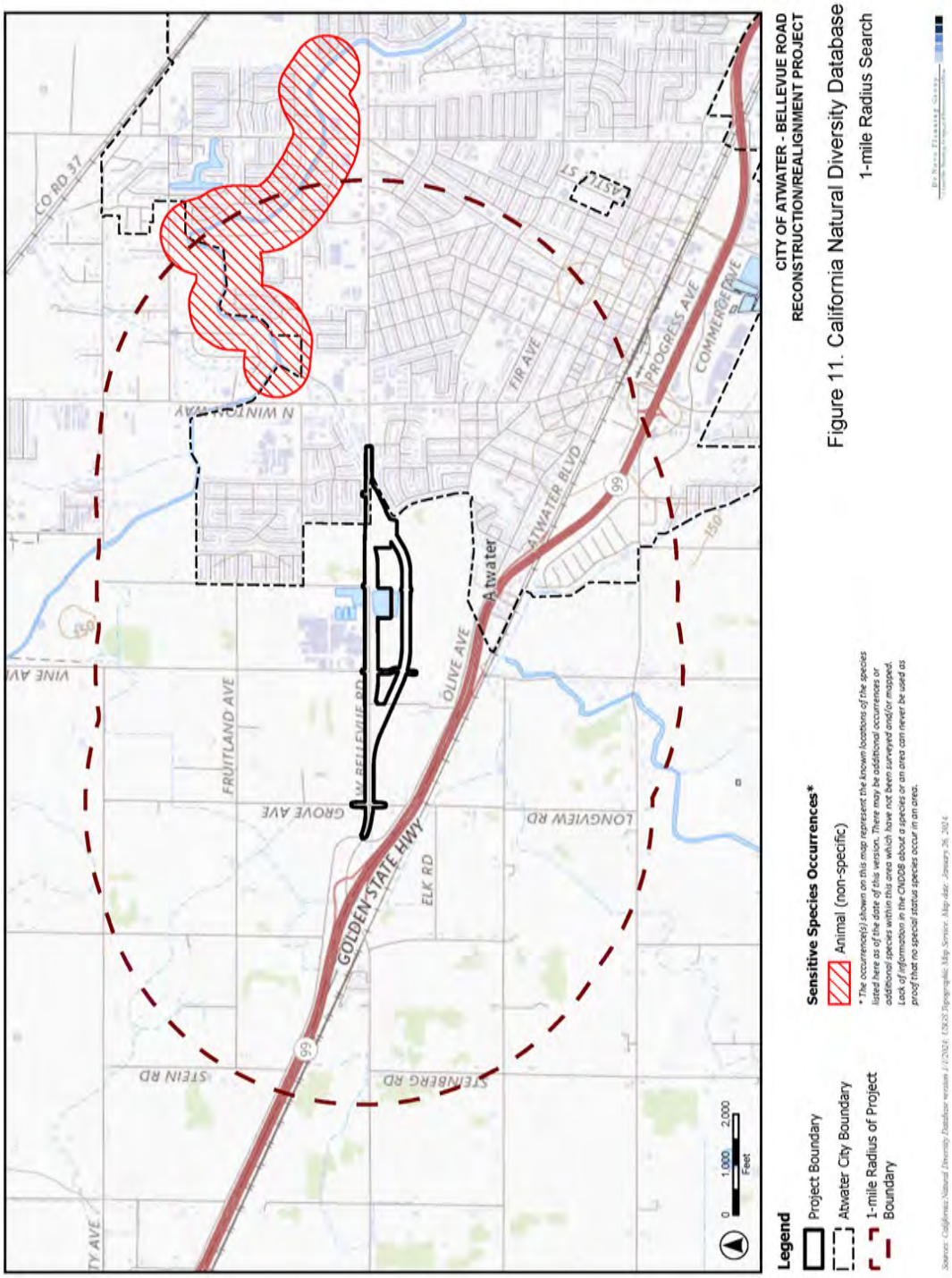

Figure 11. California Natural Diversity Database

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V. CULTURAL RESOURCES

Would The proposed Project:	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section15064.5?		X		
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?		X		
c) Disturb any human remains, including those interred outside of formal cemeteries?		X		

Responses to Checklist Questions

Response a-c): The Central California Information Center (CCIC) was requested to conduct a California Historical Resources Information System (CHRIS) Record Search for the Project site and surrounding "Project Area" (0.5-mile radius from perimeter of Project site). Results of the CHRIS Record Search were provided on August 29, 2023 (Record Search File Number 12636I) and indicated there are no cultural sites in the Project area, and no surveys covering any substantial portion of the Project area.

In addition, a field survey of the Project site was completed on December 28, 2023, with a complete inspection of the proposed Project site. The survey was conducted along the two proposed alignments to either widen Bellevue Road (Alternative II and III), or re-Route it through agricultural land to the south (Alternative I). The survey was negative for historic and prehistoric resources.

Nevertheless, the implementation of Mitigation Measure CUL-1 would require appropriate steps to preserve and/or document any previously undiscovered resources that may be encountered during construction activities, including human remains. Implementation of this measure would reduce this impact to a ***less than significant*** level.

Mitigation Measure

Mitigation Measure CUL-1*: During the initial phase of grading/excavation, The proposed Project proponent shall retain a qualified archaeologist to survey the site and monitor construction activities. If any prehistoric or historic artifacts, human remains or other indications of archaeological resources are found during grading and construction activities, an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards in prehistoric or historical archaeology, as appropriate, shall be consulted to evaluate the finds and recommend appropriate mitigation measures.*

- *If cultural resources or Native American resources are identified, every effort shall be made to avoid significant cultural resources, with preservation an important goal. If significant sites cannot feasibly be avoided, appropriate mitigation measures, such as data recovery excavations or photographic documentation of buildings, shall be undertaken consistent with applicable state and federal regulations.*
    - *If human remains are discovered, all work shall be halted immediately within 50 meters (165 feet) of the discovery, the County Coroner must be notified, according to Section 5097.98 of the State Public Resources Code and Section 7050.5 of California's Health and Safety Code. If the remains are determined to be Native*

American, the coroner would notify the Native American Heritage Commission, and the procedures outlined in CEQA Section 15064.5(d) and (e) shall be followed.

If any fossils are encountered, there shall be no further disturbance of the area surrounding this find until the materials have been evaluated by a qualified paleontologist, and appropriate treatment measures have been identified.

VI. ENERGY

Would The proposed Project:	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?			X	
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?			X	

Responses to Checklist Questions

Response a-b): Appendix G of the State CEQA Guidelines requires consideration of the potentially significant energy implications of a project. CEQA requires mitigation measures to reduce "wasteful, inefficient and unnecessary" energy usage (Public Resources Code Section 21100, subdivision [b][3]). According to Appendix G of the CEQA Guidelines, the means to achieve the goal of conserving energy include decreasing overall energy consumption, decreasing reliance on natural gas and oil, and increasing reliance on renewable energy sources. In particular, the proposed Project would be considered "wasteful, inefficient, and unnecessary" if it were to violate state and federal energy standards and/or result in significant adverse impacts related to project energy requirements, energy inefficiencies, energy intensiveness of materials, cause significant impacts on local and regional energy supplies or generate requirements for additional capacity, fail to comply with existing energy standards, otherwise result in significant adverse impacts on energy resources, or conflict or create an inconsistency with applicable plan, policy, or regulation.

The proposed Project includes three alternatives that involve restoring Bellevue Road as a major entry to the northern portion of the City of Atwater, and providing a direct route between SR-99, the City of Atwater and the Castle Commerce Center to the east. The amount of energy used at the Project site would directly correlate to the energy consumption (including fuel) used by vehicle trips generated during project construction, and fuel used by off-road construction vehicles during construction. Construction related energy consumption would be typical of a roadway construction project. There is no component of the construction phase that would involve wasteful, inefficient, and unnecessary consumption of energy. The operational phase of the proposed Project is expected to result in a net savings of energy, as vehicles would have a shortened alternative route along Bellevue Road to SR 99 (and vice versa) that does not currently exist. The shorter route would result in less fuel burn, and an overall net savings of energy compared to the existing condition. In addition, through compliance with applicable CARB regulations (Airborne Toxic Control Measure), California Code of Regulations (Title 13, Motor Vehicles), and Title 24 standards, it can be determined that the operational phase of the proposed Project would not consume energy in a manner that is wasteful, inefficient, or unnecessary.

Conclusion

The proposed Project would be responsible for conserving energy, to the extent feasible, and relies heavily on reducing per capita energy consumption to achieve this goal, including through Statewide and local measures. The proposed Project would be in compliance with all applicable federal, state, and local regulations regulating energy usage. For example, statewide measures, including those intended to improve the energy efficiency of the statewide passenger and heavy-duty truck vehicle fleet (e.g. the Pavley Bill and the Low Carbon Fuel Standard) are improving

vehicle fuel economies, thereby conserving gasoline and diesel fuel. These energy savings would continue to accrue over time.

As a result, the proposed Project would not result in any significant adverse impacts related to project energy requirements, energy use inefficiencies, and/or the energy intensiveness of materials by amount and fuel type for each stage of the proposed Project including construction, operations, maintenance, and/or removal. PG&E, the electricity and natural gas provider to the Project site, maintains sufficient capacity to serve the proposed Project. The proposed Project would comply with all existing energy standards, including those established by the City of Atwater and Merced County, and would not result in significant adverse impacts on energy resources. Therefore, the proposed Project would not be expected cause an inefficient, wasteful, or unnecessary use of energy resources nor cause a significant impact on any of the threshold as described by Appendix G of the CEQA Guidelines. This is a **less than significant** impact.

VII. GEOLOGY AND SOILS

Would The proposed Project:	***Potentially Significant Impact***	***Less Than Significant with Mitigation***	***Less Than Significant Impact***	***No Impact***
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:			X	
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.			X	
ii) Strong seismic ground shaking?			X	
iii) Seismic-related ground failure, including liquefaction?			X	
iv) Landslides?			X	
b) Result in substantial soil erosion or the loss of topsoil?		X		
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the proposed Project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?			X	
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?			X	
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?				X
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?			X	

Environmental Setting

Atwater is located within the San Joaquin Valley which is part of the Great Valley Geomorphic Providence that is bounded to the east by the Sierra Nevada Mountain range, to the west by the Coastal Range, and to the south by the Tehachapi mountains. Atwater has infrequent and low historic seismic activity. In addition, the city has no known active earthquake faults (i.e., faults showing activity within the last 11,000 years) and is not in any Alquist Priolo Special Studies Zones. Figure 12 illustrates the topography of the Project site.

The nearest faults are approximately 20 miles to the northeast in the Sierra Nevada Range (i.e., the Bear Mountain Fault) and approximately 30 miles to the southwest in the Diablo/Coastal

Range (i.e., the San Joaquin, O'Neill, and Ortigalita Faults). The Ortigalita Fault is the nearest fault within the Alquist-Priolo earthquake fault zone and is part of the active San Andreas fault system. Earthquakes from nearby faults would most likely generate ground motion of shaking, but there is no history of this causing damage in the area. Compliance with the California Building Code (CBC) would be sufficient to prevent significant damage during seismic events.

Subsurface Soils

A search of the Web Soil Survey by the USDA Natural Resources Conservation Service indicates that the Project site comprises entirely Atwater Sand (AnA and AnB), as shown in Figure 13.

Responses to Checklist Questions

Responses a.i), a.ii), a.iv): Figure 14 shows the earthquake faults in the vicinity of the Project site. As shown in the figure, the Project site is not located within a currently designated Alquist-Priolo Earthquake Fault Zone, and known surface expression of active faults does not exist within the Project site. There are no known active earthquake faults in Atwater. As such, development of the proposed Project in an area void of earthquake faults would not cause rupture of a known earthquake fault.

Geologic Hazards

Potential seismic hazards resulting from a nearby moderate to major earthquake could generally be classified as primary and secondary. The primary seismic hazard is ground rupture, also called surface faulting. The common secondary seismic hazards include ground shaking and ground lurching.

Ground Rupture

Because the Project site does not have known active faults crossing the Project site, and the Project site is not located within an Earthquake Fault Special Study Zone, ground rupture is unlikely at the Project site.

Ground Shaking

According to the California Geological Survey's Probabilistic Seismic Hazard Assessment Program, Atwater is within an area that is predicted to have a 10 percent probability that a seismic event would produce horizontal ground shaking of 10 to 20 percent within a 50-year period. This level of ground shaking correlates to a Modified Mercalli intensity of V to VII, light to strong. As a result of these factors the California Geological Survey has defined the entire county as a seismic hazard zone. There would always be a potential for groundshaking caused by seismic activity anywhere in California, including the Project site under all three identified alternatives.

Landslides

The Project site is not susceptible to landslides because the area is essentially flat. This is a less than significant impact.

Conclusion

To minimize potential damage to the proposed site improvements, all construction in California is required to be designed in accordance with the latest seismic design standards of the CBC, which would limit potential damage to structures and thereby reduce potential impacts including

the risk of loss, injury, or death. Compliance with the CBC would ensure a less than significant impact. Additionally, the City of Atwater has adopted Design and Construction Standards and incorporated numerous policies relative to seismicity to ensure the health and safety of all people. Design in accordance with these standards and policies would reduce any potential impact to a less than significant level. Because all development on the proposed Project must be designed in conformance with these state and local standards and policies, any potential impact would be considered ***less than significant***.

Responses a.iii), c), d): Liquefaction normally occurs when sites underlain by saturated, loose to medium dense, granular soils are subjected to relatively high ground shaking. During an earthquake, ground shaking may cause certain types of soil deposits to lose shear strength, resulting in ground settlement, oscillation, loss of bearing capacity, landsliding, and the buoyant rise of buried structures. Most liquefaction hazards are associated with sandy soils, silty soils of low plasticity, and some gravelly soils. Cohesive soils are generally not considered to be susceptible to liquefaction. In general, liquefaction hazards are most severe within the upper 50 feet of the surface, except where slope faces or deep foundations are present.

Expansive soils are those that undergo volume changes as moisture content fluctuates; swelling substantially when wet or shrinking when dry. Soil expansion can damage structures by cracking foundations, causing settlement, and distorting structural elements. Expansion is a typical characteristic of clay-type soils. Expansive soils shrink and swell in volume during changes in moisture content, such because of seasonal rain events, and can cause damage to foundations, concrete slabs, roadway improvements, and pavement sections.

Soil expansion is dependent on many factors. The more clayey, critically expansive surface soil and fill materials would be subjected to volume changes during seasonal fluctuations in moisture content. There are no expansive (i.e. shrink-swell) soils within the Project site, as shown in Figure 15. The soils encountered at the Project site consist of entirely of Atwater Sand. Liquefaction and lateral spreading potential in Atwater are considered very low as due to the nature of the underlying soils, relatively deep-water table, and history of low ground shaking potential. In addition, there are no geologic hazards or unstable soil conditions known to exist on the Project site. Therefore, this potential impact would be ***less than significant***.

Response b): According to the Project site plans prepared for the proposed Project, under all three identified alternatives, development of the proposed Project would result in the creation of new impervious surface areas in portions of the Project site. The development of the proposed Project would also cause ground disturbance of top soil. The ground disturbance would be limited to the areas proposed for grading and excavation, including the proposed roadways and drain infrastructure improvements under all three identified alternatives. After grading and excavation, and prior to overlaying the disturbed ground surfaces with impervious surfaces and structures, the potential exists for wind and water erosion to occur, which could adversely affect downstream storm drainage facilities.

Without implementation of appropriate Best Management Practices (BMPs) related to prevention of soil erosion during construction, development of the proposed Project, under all three identified alternatives, would result in a potentially significant impact with respect to soil erosion. Implementation of the following mitigation measure would ensure the impact is ***less than significant***.

Mitigation Measure

Mitigation Measure GEO-1*: The proposed Project applicant shall submit a Notice of Intent (NOI) and Storm Water Pollution Prevention Plan (SWPPP) to the RWQCB in accordance with the NPDES General Construction Permit requirements. The SWPPP shall be designed to control pollutant discharges utilizing Best Management Practices (BMPs) and technology to reduce erosion and sediments. BMPs may consist of a wide variety of measures taken to reduce pollutants in stormwater runoff from the Project site. Measures shall include temporary erosion control measures (such as silt fences, staked straw bales/wattles, silt/sediment basins and traps, check dams, geofabric, sandbag dikes, and temporary revegetation or other ground cover) that would be employed to control erosion from disturbed areas. Final selection of BMPs would be subject to approval by the City of Atwater and the RWQCB. The SWPPP would be kept on site during construction activity and would be made available upon request to representatives of the RWQCB.*

Response e): The proposed Project is an infrastructure project and no septic systems would be used. Therefore, ***no impact*** would occur related to soils incapable of adequately supporting the use of septic tanks.

Response f): Known paleontological resources or sites are not located on the Project site. Additionally, unique geologic features are not located on the Project site. The Project site is currently undeveloped and surrounded by existing or future urban development. As discussed in Section V, Cultural Resources, should artifacts or unusual amounts of stone, bone, or shell be uncovered during construction activities, an archeologist should be consulted for an evaluation. Implementation of Mitigation Measure CUL-1 would require investigations and avoidance methods if a previously undiscovered resource is encountered during construction activities. With implementation of Mitigation Measure CUL-1, impacts to paleontological resources or unique geologic features are not expected. This is a ***less than significant*** impact.

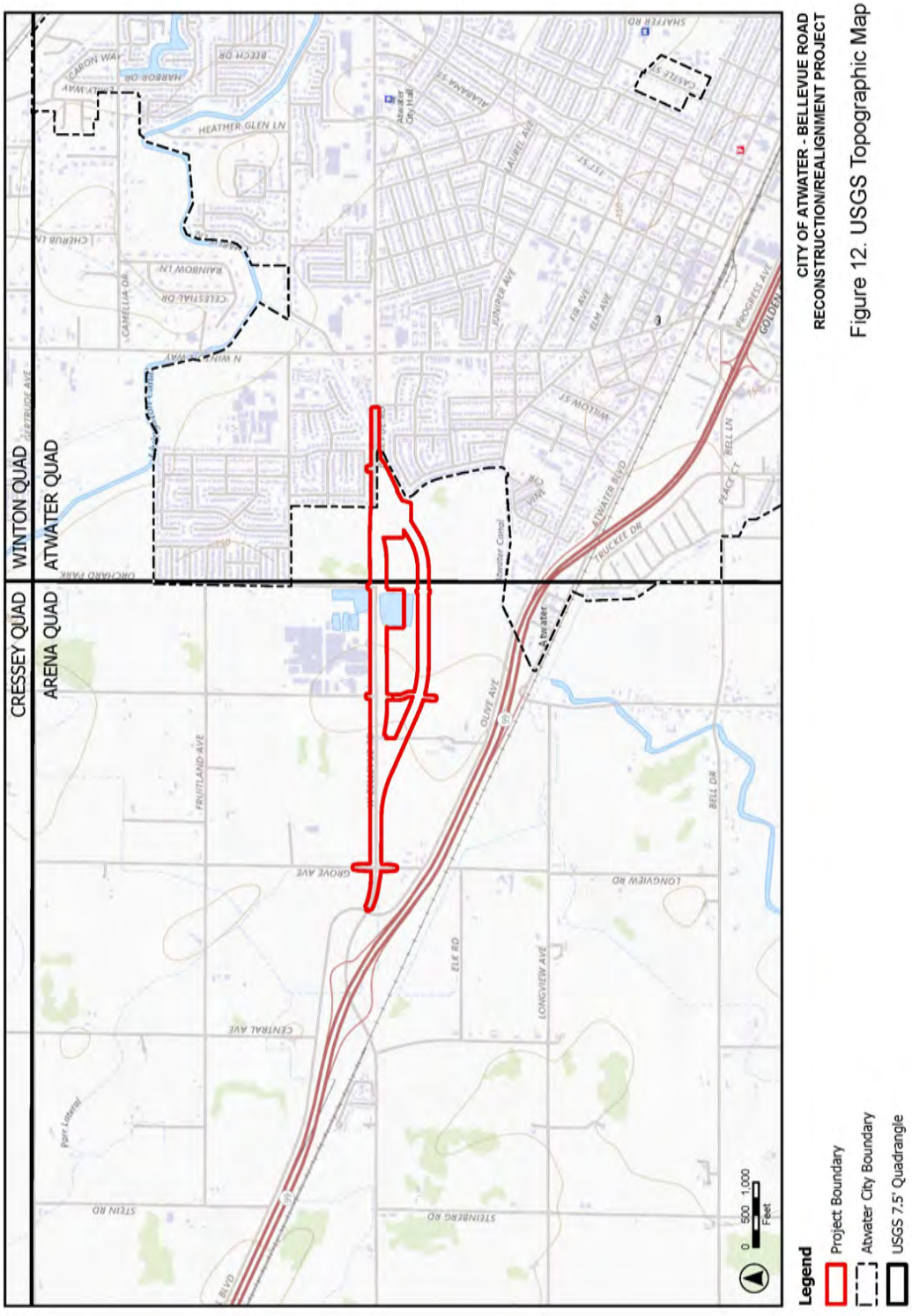

Figure 12. USGS Topographic Map

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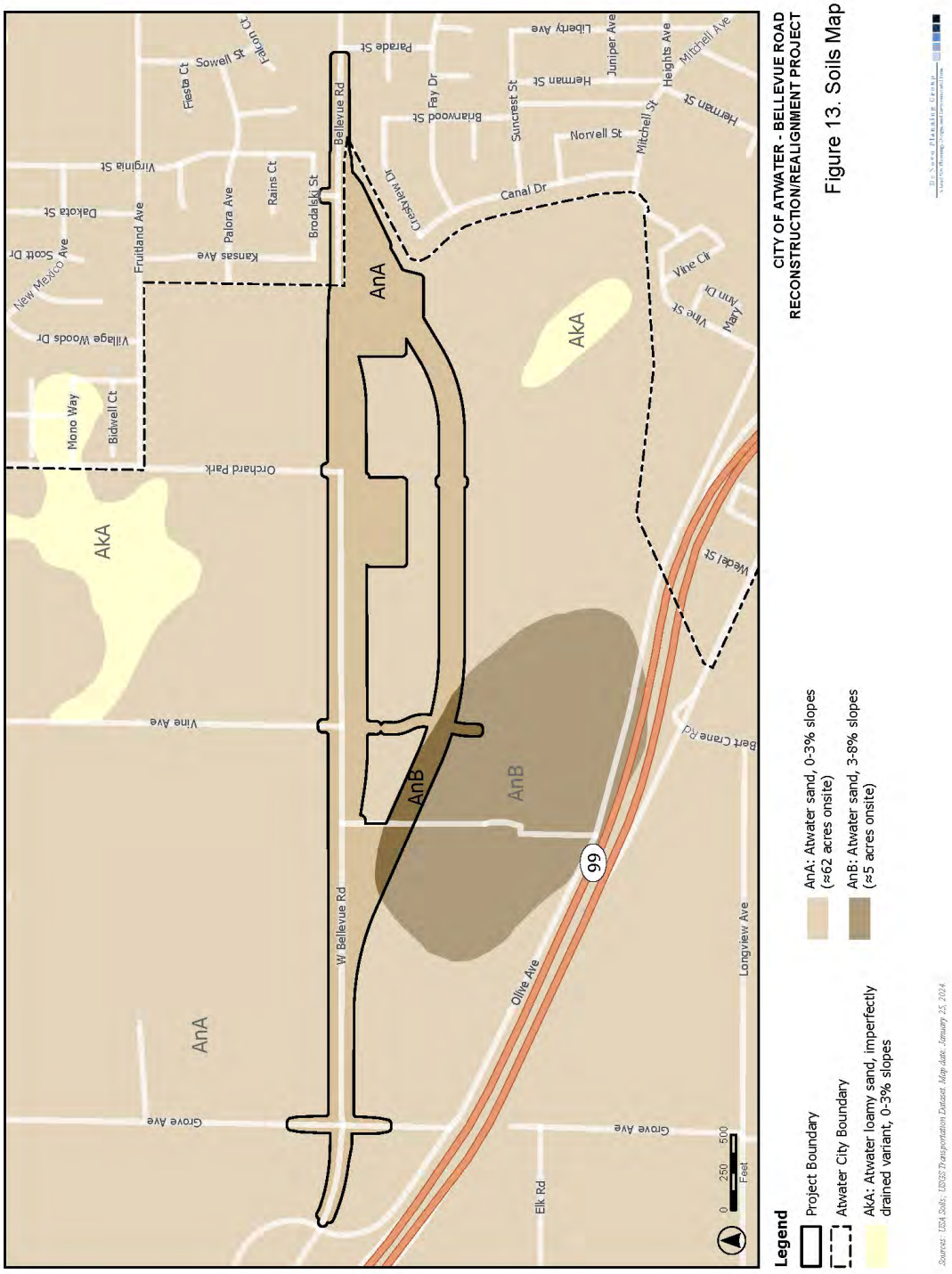
CITY OF ATWATER - BELLEVUE ROAD
RECONSTRUCTION/REALIGNMENT PROJECT
Figure 13. Soils Map
Legend
Project Boundary
Atwater City Boundary
AkA: Atwater loamy sand, imperfectly drained variant, 0-3% slopes
AnA: Atwater sand, 0-3% slopes (≈62 acres onsite)
AnB: Atwater sand, 3-8% slopes (≈5 acres onsite)
Bellevue Rd
W Bellevue Rd
Parade St
Fiesta Ct
Sowell St
Fallon Ct
Virginia St
Dakota St
Scott Dr
New Mexico Ave
Fruitland Ave
Kansas Ave
Palora Ave
Rains Ct
Brodalski St
Village Woods Dr
Momo Way
Bidwell Ct
Orchard Park
Vine Ave
Grove Ave
Elk Rd
Olive Ave
Longview Ave
Bert Crane Rd
Wedel St
Vine Ct
Vine St
Mary Ann Dr
Canal Dr
Norvell St
Suncrest St
Briarwood St
Fay Dr
Herman St
Liberty Ave
Juniper Ave
Heights Ave
Mitchell Ave
Mitchell St
Herman St
Creekview Dr
AnA
AnB
AkA
99
0
250
500
Feet

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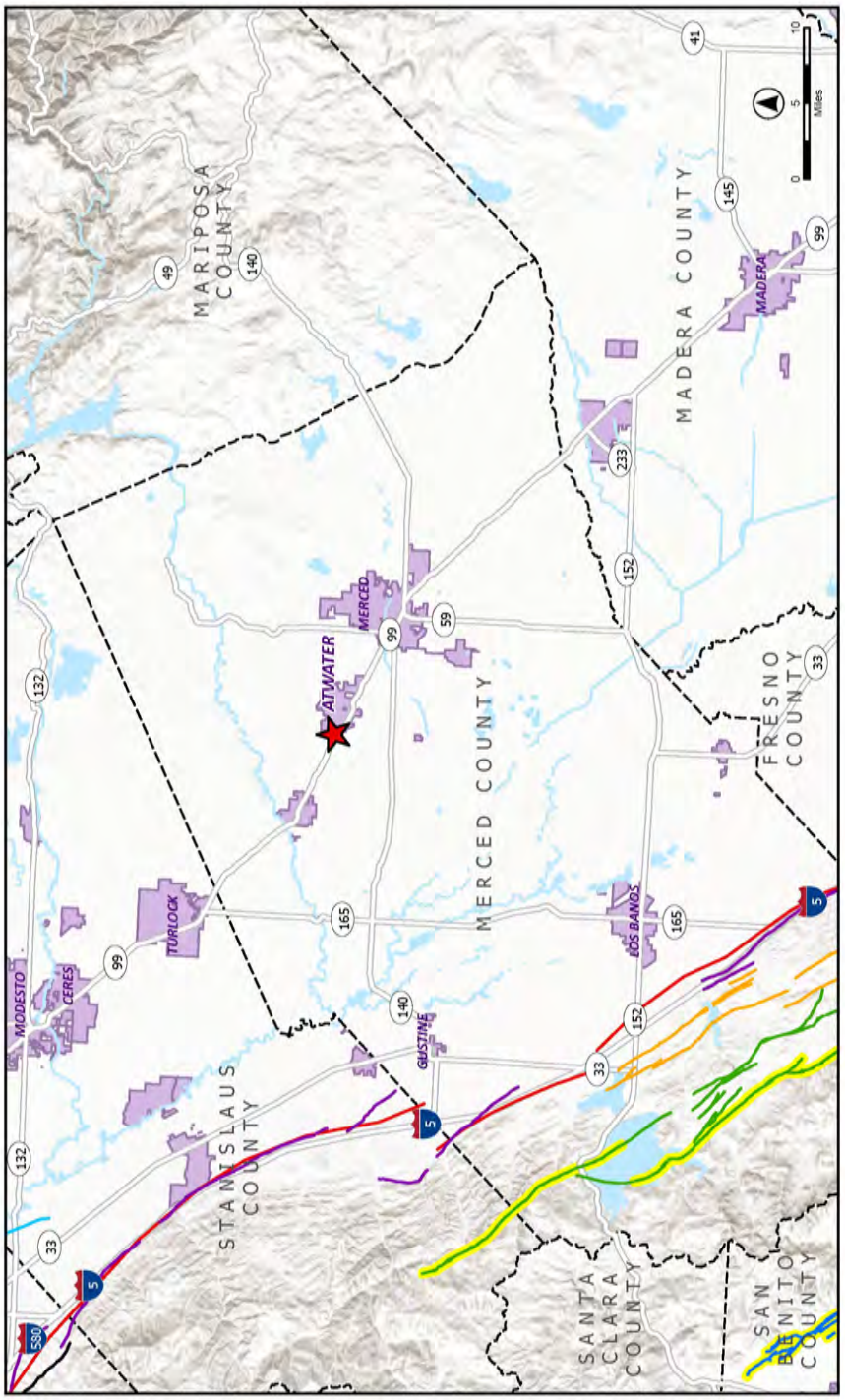
CITY OF ATWATER - BELLEVUE ROAD RECONSTRUCTION/REALIGNMENT PROJECT
Figure 14. Earthquake Faults
Legend
Project Location
Incorporated Area
County Area
Black Butte fault
Great Valley thrust fault system
O'Neill fault system
Ortigalita fault zone
Quien Sabe fault
San Joaquin fault
Vernalis fault
Alquist-Priolo Fault Zone
MERCED COUNTY
MARIPOSA COUNTY
MADERA COUNTY
FRESNO COUNTY
STANISLAUS COUNTY
SANTA CLARA COUNTY
SAN BENITO COUNTY
ATWATER
MERCED
MODESTO
CERES
TURLOCK
GUSTINE
LOS BANOS
MADERA
Miles

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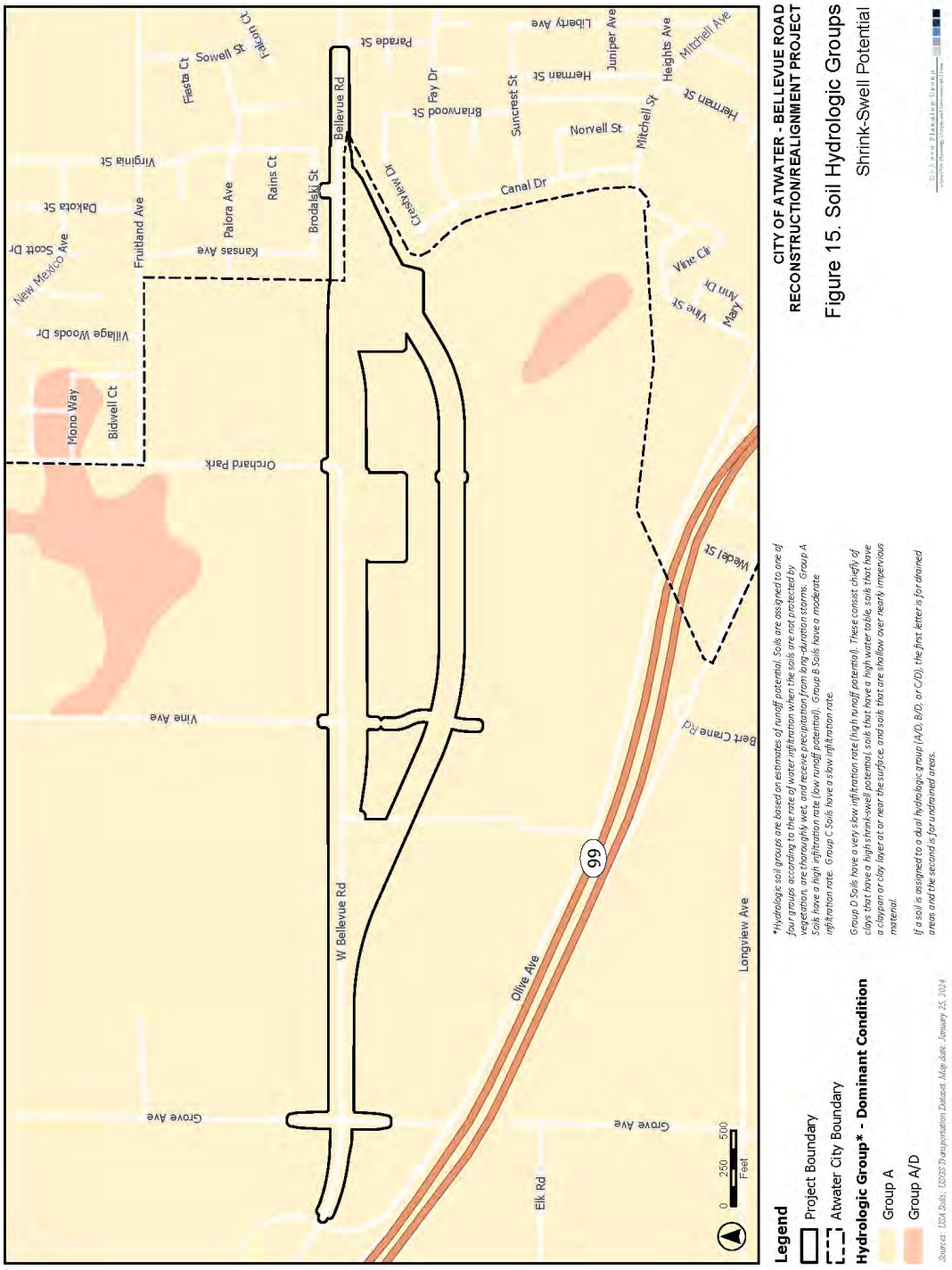
CITY OF ATWATER - BELLEVUE ROAD RECONSTRUCTION/REALIGNMENT PROJECT
Figure 15. Soil Hydrologic Groups
Shrink-Swell Potential
Legend
Project Boundary
Atwater City Boundary
Hydrologic Group* - Dominant Condition
Group A
Group A/D
*Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms. Group A Soils have a high infiltration rate (low runoff potential). Group B Soils have a moderate infiltration rate. Group C Soils have a slow infiltration rate.
Group D Soils have a very slow infiltration rate (high runoff potential). These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material.
If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas.
Sources: USDA Soils; TDOSD Transportation Dataset. Map date: January 25, 2024
0 250 500 Feet
Bellevue Rd
W Bellevue Rd
Olive Ave
Grove Ave
Vine Ave
Orchard Park
Elk Rd
Longview Ave
Bert Crane Rd
Wedel St
Parade St
Fay Dr
Briarwood St
Suncrest St
Norvell St
Mitchell St
Heights Ave
Juniper Ave
Liberty Ave
Herman St
Canal Dr
Crestview Dr
Brodelski St
Rains Ct
Palora Ave
Kansas Ave
Fruitland Ave
Virginia St
Dakota St
New Mexico Ave
Scott Dr
Village Woods Dr
Bidwell Ct
Mono Way
Fiesta Ct
Sowell St
Talbott Ct
Vine Ct
Vine St
Mary Ann Dr
99

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VIII. GREENHOUSE GAS EMISSIONS

Would The proposed Project:	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			X	
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gasses?			X	

Existing Setting

Various gases in the Earth's atmosphere, classified as atmospheric greenhouse gases (GHGs), play a critical role in determining the Earth's surface temperature. Solar radiation enters Earth's atmosphere from space, and a portion of the radiation is absorbed by the Earth's surface. The Earth emits this radiation back toward space, but the properties of the radiation change from high-frequency solar radiation to lower-frequency infrared radiation.

Naturally occurring GHGs include water vapor (H_2O), carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and ozone (O_3). Several classes of halogenated substances that contain fluorine, chlorine, or bromine are also GHGs, but they are, for the most part, solely a product of industrial activities. Although the direct GHGs, including CO_2, CH_4, and N_2O, occur naturally in the atmosphere, human activities have changed their atmospheric concentrations. From the pre-industrial era (i.e., ending about 1750) to 2011, concentrations of these three GHGs have increased globally by 40, 150, and 20 percent, respectively (IPCC, 2013).

Greenhouse gases, which are transparent to solar radiation, are effective in absorbing infrared radiation. As a result, this radiation that otherwise would have escaped back into space is now retained, resulting in a warming of the atmosphere. This phenomenon is known as the greenhouse effect. Among the prominent GHGs contributing to the greenhouse effect are carbon dioxide (CO_2), methane (CH_4), ozone (O_3), water vapor, nitrous oxide (N_2O), and chlorofluorocarbons (CFCs).

Emissions of GHGs contributing to global climate change are attributable in large part to human activities associated with the industrial/manufacturing, utility, transportation, residential, and agricultural sectors. Consumption of fossil fuels in the transportation sector was the single largest source of California's GHG emissions in 2021, accounting for 39% of total GHG emissions in the state. This category was followed by the industrial sector (22%), the electricity generation sector (including both in-state and out of-state sources) (16%) and the agriculture and forestry sector (8%) (California Energy Commission, 2023).

As the name implies, global climate change is a global problem. GHGs are global pollutants, unlike criteria air pollutants and toxic air contaminants, which are pollutants of regional and local concern, respectively. California produced approximately 425 million gross metric tons of carbon dioxide equivalents ($MMTCO_2e$) in 2018 (California Energy Commission, 2021). Given that the U.S. EPA estimates that worldwide emissions from human activities totaled nearly 46 billion gross metric tons of carbon dioxide equivalents ($BMTCO_2e$) in 2010, California's incremental contribution to global GHGs is approximately 2% (U.S. EPA, 2014).

Carbon dioxide equivalents are a measurement used to account for the fact that different GHGs have different potential to retain infrared radiation in the atmosphere and contribute to the greenhouse effect. This potential, known as the global warming potential of a GHG, is also dependent on the lifetime, or persistence, of the gas molecule in the atmosphere. Expressing GHG emissions in carbon dioxide equivalents takes the contribution of all GHG emissions to the greenhouse effect and converts them to a single unit equivalent to the effect that would occur if only CO_2 were being emitted.

2022 Climate Change Scoping Plan

The CARB 2022 Climate Change Scoping Plan is the adopted statewide plan for reduction and mitigation of GHGs to implement Assembly Bill (AB) 1279. AB 1279 was issued on August 12, 2022 to require California to achieve "net zero greenhouse gas emissions" as soon as possible and to further reduce anthropogenic GHG emissions thereafter. It sets a statewide goal to reduce emissions 85% below 1990 levels no later than 2045.

Consequently, the Scoping Plan involves several measures for cost-effective reduction of GHG emissions, including continuing existing programs such as Renewable Portfolio Standard, Advanced Clean Cars, Low Carbon Fuel Standard, etc., and achieving new mandates to decarbonize several sectors. Along with reducing emissions, environmental justice policies are included to address the ongoing air quality disparities.

Appendix D of the 2022 Scoping Plan include recommendations to build momentum for local government actions to align with State goals, including through CEQA review. The Appendix outlines the priority GHG reduction strategies for local governments, including transportation electrification, VMT reduction, and building decarbonization[4].

SJVAPCD CEQA Air Quality Guidelines

The SJVAPCD's Guidance for Valley Land Use Agencies in Addressing GHG Impacts for New Projects Under CEQA (2009) provides screening criteria for climate change analyses, as well as draft guidance for the determination of significance[5,6]. These criteria are used to evaluate whether a project would result in a significant climate change impact (see below). Projects that meet one of these criteria would have less than significant impact on the global climate.

- Does the project comply with an adopted statewide, regional, or local plan for reduction or mitigation of GHG emissions? If no, then:
- Does the project achieve 29% GHG reductions by using approved Best Performance Standards (BPS)? If no, then

[4] California Air Resources Board. (2022). 2022 Scoping Plan Appendix D. Accessed on February 16, 2024, Accessed: <https://ww2.arb.ca.gov/sites/default/files/2022-11/2022-sp-appendix-d-local-actions.pdf>.

[5] San Joaquin Valley Air Pollution Control District. (2009). Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA. Accessed February 16, 2024. Accessed: <http://www.valleyair.org/Programs/CCAP/12-17 09/3%20CCAP%20-%20FINAL%20LU%20Guidance%20-%20Dec%2017%202009.pdf>.

[6] San Joaquin Valley Air Pollution Control District. (2000). Environmental Review Guidelines: Procedures for Implementing the California Environmental Quality Act. Accessed February 16, 2024, Accessed: <http://www.valleyair.org/transportation/CEQA%20Rules/ERG%20Adopted%20_August%202000_.pdf>.

- Does the project achieve AB 32 targeted 29% GHG emission reductions compared with Business as Usual (BAU)?

Assembly Bill (AB) 32 was enacted by the California State legislature in 2006 with the aim to reduce GHG emissions to levels of 1990 by 2020. Recommended actions to achieve these aims were adopted by the California Air Resources Board (CARB) in 2008 (i.e., the Climate Change Scoping Plan). However, the 29% GHG emission reductions compared to BAU threshold is outdated since it is aimed to meet AB 32's 2020 goals, thus this threshold would not be used for analysis.

The City of Atwater does not have an adopted Climate Action Plan or GHG Reduction Plan. Because BPS have not yet been adopted and identified for specific development projects, and because the City of Atwater has not yet adopted a plan for reduction of GHG with which the proposed Project can demonstrate compliance, the California Air Resources Board (CARB) 2022 Climate Change Scoping Plan and guidance from the SJVAPCD would be used as the threshold of significance.

City of Atwater General Plan

At the local level, while the City of Atwater General Plan does not meet criteria of the CEQA Guidelines 15064.4(b)(3) for an appropriate GHG emissions reduction plan or program, the General Plan does have goals and policies relevant to climate change and minimizing GHG emissions and other pollutants, with an overall aim to reduce air quality impacts on the environment. These goals and policies are outlined in the Open Space and Conservation Element (CO), "Air Quality," and Safety Element (SF), "Wind Erosions and Dust Storms"[7].

Responses to Checklist Questions

Responses a): The 2023 CEQA Guidelines do not establish a quantitative threshold of significance for GHG impacts, leaving lead agencies the discretion to establish such thresholds for their respective jurisdictions. Since the SJVAPCD does not have established GHG significance emissions thresholds and the City of Atwater does not have an adopted CAP for CEQA tiering purposes, the following utilizes qualitative analysis for greenhouse gas emission impacts:

- Construction Emissions: Regarding construction, the SJVAPCD does not recommend assessing pollution associated with construction, as pollution-related construction would be temporary. These construction GHG emissions are a one-time release. As such, it can be anticipated that these construction emissions would not generate a significant contribution to global climate change over the lifetime of the proposed Project
- Operational Emissions: Long-term operational related GHG emissions include vehicle emissions, emissions associated with utility and water usage, and wastewater and solid waste generation. The operations of the proposed Project, including basins, would generate minimal vehicle emissions since only maintenance vehicles are required for operation.

Construction Activities

Construction activities, such as site preparation, site grading, on-site heavy-duty construction vehicles, equipment hauling materials to and from the Project site, and motor vehicles

[7] City of Atwater, California. (2000). City of Atwater 2000 General Plan

transporting the construction crew would produce combustion emissions from various sources. During the construction of the proposed project, GHGs would be emitted through the operation of construction equipment and from worker and builder supply vendor vehicles, each of which typically uses fossil-based fuels to operate. The combustion of fossil-based fuels creates GHGs such as CO2, CH4, and N2O. Furthermore, CH4 is emitted during the fueling of heavy equipment. Exhaust emissions from on-site construction activities would vary daily as construction activity levels change. Although construction activities would result in the emissions of GHGs, the emissions would be temporary in nature and would have a ***less than significan***t impact.

Operational Emissions

The proposed Project would be generally consistent with the applicable goals and policies related to GHG reduction measures, including CARB's 2022 Scoping Plan and SJVAPCD guidelines, and the City of Atwater General Plan goals and policies that aim to reduce air emissions and improve air quality, which reduces GHG emissions as a result. Cumulatively, these emissions would not generate a significant contribution to global climate change over the lifetime of the proposed Project. As such, it can be determined that the proposed Project would not occur at a scale or scope with potential to contribute substantially or cumulatively to the generation of GHG emissions and therefore the impact would be ***less than significan***t.

Responses b): The Merced CAG's 2022 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) identifies the proposed Project as a Tier 1 Project, and Air Quality Conformity has been prepared and adopted. The proposed Project is consistent with, and is implementing the RTP/SCS.

The RTP/SCS includes a series of goals for the region that would reduce GHG emissions based on the land use consistency and the reduction of vehicle trips. Relevant goals and policies include:

> ***Goal 12 Sustainable Communities:*** *Reduce per capita greenhouse gas emissions through compact growth and alternative transportation strategies. Protect and enhance the natural environment. Support vehicle electrification and the provision of electrification infrastructure in public and private parking facilities and structures.*

Most goals and policies are implemented at the regional or city level. Since the proposed Project is realignment and/or reconstruction of an existing infrastructure project and would be subject to local regulations, the proposed Project would be consistent with goals and policies identified in the RTP/SCS.

The proposed Project complies with the City of Atwater General Plan goals and policies as listed in the Environmental Settings since it is generally compliant with the SJVAPCD air quality attainment plans. The proposed Project contains features that would reduce GHG emissions in compliance with CARB 2022 Climate Change Scoping Plan, MCAG RTP/SCS, and the City of Atwater General Plan. As such, the proposed Project would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs, and therefore the impact would be ***less than significant***.

IX. HAZARDS AND HAZARDOUS MATERIALS

Would The proposed Project:	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			X	
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?			X	
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?			X	
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?			X	
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the proposed Project result in a safety hazard or excessive noise for people residing or working in the proposed Project area?			X	
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			X	
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?			X	

Responses to Checklist Questions

Responses a): The proposed Project is an infrastructure/roadway project that is surrounded by light industrial and agricultural uses. Although vehicles with hazardous materials could traverse the Project site during project operation, the proposed Project is located sufficiently distant from sensitive receptors such that any routine transport, use, or disposal of hazardous materials would not be anticipated to cause a significant hazard. In addition, the proposed Project aims to improve accessibility and circulation to and through the City and would provide connectivity between State Route 99 and the City of Atwater, as well as the Castle Commerce Center located near the east side of the city. Currently, Bellevue Road is a public road, closed to the public (between Vine Avenue and Orchard Park) under CUP #3721 approved for Dole Packaged Foods between Vine Avenue and Orchard Park Avenue. This causes an additional 2.5 miles of travel to navigate to the State Route 99/West Side interchange from the city, potentially increasing the risk of the length and time of travel of hazardous materials being transported. The road realignment would provide a more direct route. The operational phase of the proposed Project does not pose a significant hazard to the public or the environment.

Uses related to this type of project typically do not include production or services that would require the routine transport, use, or disposal of hazardous materials. Further, operations that are likely to routinely transport, use, or dispose of hazardous materials would not otherwise be permitted in the existing Low Density Residential, High Density Residential, Path/Park, Commercial, and Business Park land use designations of the Project site or the existing Residential Single-Family (R-1) and General Agriculture (A-1) zoning districts by the Merced County Zoning Map. While demolition and construction activities may include the temporary transport, storage, use or disposal of potentially hazardous materials (e.g., fuels, lubricating fluids, cleaners, solvents, etc.), such activities would be regulated by the Department of Toxic Substances Control through the California Hazardous Waste Control Law and Hazardous Waste Control Regulations. Compliance would ensure that construction-related impacts would be less than significant. For these reasons, the proposed Project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials and the proposed Project would have a ***less than significant*** impact.

Response b): It is not anticipated that the proposed Project, a realignment and/or reconstruction of existing infrastructure, would involve any operations that would require routine transport, use, or disposal of hazardous materials and therefore is not anticipated to create a significant hazard to the public or the environment through release of hazardous materials. While potential impacts would occur through construction-related transport and disposal of hazardous materials, such impacts would be short-term and temporary, and would be reduced to less than significant levels through compliance with local, state, and federal regulations in addition to standard equipment operating practices. Therefore, the proposed Project would have a ***less than significant*** impact.

Response c): The Project site is not located within ¼ mile of an existing school. The nearest school (Aileen Colburn Elementary School) is located approximately 0.48 miles to the southeast of the Project site, at its closest point. Therefore, implementation of the proposed Project would result in a ***less than significant*** impact relative to this topic.

Response d): The United States Environmental Protection Agency (EPA) Superfund National Priorities List (NPL), California Department of Toxic Substance Control's EnviroStor database, and the State Water Resources Control Board's GeoTracker database include hazardous release and contamination sites. A search of each database revealed no sites are present within the Project site. According the California Department of Toxic Substances Control (DTSC) there are no Federal Superfund Sites, State Response Sites, or Voluntary Cleanup Sites on, or in the near vicinity of the Project site. The Project site is not included on a list of hazardous materials sites compiled pursuant to Government Code § 65962.5. The nearest investigation site, located approximately 1.35 miles to the southeast of the Project site, is:

- Corrective Action - Atwater Iron & Metal (site 60003177): This site is a hazardous materials site, which has a current cleanup status of inactive - needs evaluation.

Therefore, implementation of the proposed Project would result in a ***less than significant*** impact relative to this environmental topic.

Response e): The Federal Aviation Administration (FAA) establishes distances of ground clearance for take-off and landing safety based on such items as the type of aircraft using the airport. The Project site is not located within the vicinity of a private airstrip or public airport. The closest airport or airstrip is the Merced Castle Airport, located approximately 3.0 miles

northeast of the Project site. Implementation of the proposed Project, under all identified alternatives, would have a ***less than significant*** impact with regards to this environmental issue.

Response f): The Merced County Office of Emergency Services (OES) maintains a Multi-Jurisdictional Hazard Mitigation Plan (MJHMP) to guide hazard mitigation planning that serves as the official Emergency Plan for Merced County. It includes planned operational functions and overall responsibilities of County Departments during an emergency. The Emergency Plan also contains a threat summary for Merced County and the City of Atwater, which addresses the potential for natural, technological, and human-caused disasters.

The Merced County Environmental Health Department maintains a Hazardous Materials Business Plan (HMBP). The HMBP describes agency roles, strategies, and processes for responding to emergencies involving hazardous materials. The Environmental Health Department maintains a Hazardous Materials Database and Risk and Flood Maps available to the public on its website.

In Merced County, all major roads are available for evacuation, depending on the location and type of emergency that arises. The proposed Project does not include any actions that would impair or physically interfere with any of Merced County's emergency plans or evacuation routes. Moreover, the proposed Project itself under all identified alternatives would provide additional road connectivity within the area to facilitate emergency plans or evacuation routes. Construction of improvements may require lane closures; however, these activities would be short-term and access would be maintained through standard traffic control. Construction activities are not expected to result in any unknown significant road closures, traffic detours, or congestion that could hinder the emergency vehicle access or evacuation in the event of an emergency. Implementation of the proposed Project would have a ***less than significant*** impact with regards to this environmental issue.

Response g): The risk of wildfire is related to a variety of parameters, including fuel loading (vegetation), fire weather (winds, temperatures, humidity levels and fuel moisture contents), and topography (degree of slope). Steep slopes contribute to fire hazard by intensifying the effects of wind and making fire suppression difficult. Fuels such as grass are highly flammable because they have a high surface area to mass ratio and require less heat to reach the ignition point, while fuels such as trees have a lower surface area to mass ratio and require more heat to reach the ignition point.

The City has areas with an abundance of flashy fuels (i.e., grassland) in the outlying open lands that, when combined with warm and dry summers with temperatures often exceeding 100 degrees Fahrenheit, create a situation that results in higher risk of wildland fires. Most wildland fires are human caused, so areas with easy human access to land with the appropriate fire parameters generally result in an increased risk of fire.

The Project site is not identified by the California Department of Forestry and Fire Protection (Cal Fire) or the City of Atwater as a Very High Fire Hazard Severity Zone (VHFHSZ); rather, the Project site is within an "area of local responsibility" and is considered an area of low fire risk. The Project site is also not located on a steep slope, and the Project site is essentially flat. The Project site is also located in an area with existing agricultural and/or urban development, with existing or future agricultural and/or urban development located on all sides. Therefore, this is a ***less than significant*** impact and no mitigation is required.

X. HYDROLOGY AND WATER QUALITY

Would The proposed Project:	***Potentially Significant Impact***	***Less Than Significant with Mitigation Incorporation***	***Less Than Significant Impact***	***No Impact***
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?			X	
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the proposed Project may impede sustainable groundwater management of the basin?			X	
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
(i) Result in substantial erosion or siltation on- or off-site;			X	
(ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;			X	
(iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or			X	
(iv) Impede or redirect flood flows?			X	
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?			X	
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?			X	

Responses to Checklist Questions

Response a): Implementation of proposed Project would not violate any water quality or waste discharge requirements. Construction activities including grading could temporarily increase soil erosion rates during and shortly after project construction. Construction-related erosion could result in the loss of soil and could adversely affect water quality in nearby surface waters. The RWQCB requires a project-specific construction SWPPP to be prepared for each project that disturbs an area one acre or larger. The SWPPP is required to include project specific best management practices that are designed to control drainage and erosion. Mitigation Measure GEO-1 would require the preparation of a SWPPP to ensure that the proposed Project prepares and implements a SWPPP throughout the construction phase of the proposed Project. The SWPPP (Mitigation Measure GEO-1) and the proposed Project specific drainage plan would reduce the potential for the proposed Project to violate water quality standards during construction. Therefore, implementation of the proposed Project under all identified alternatives would result in a ***less than significant*** impact relative to this topic.

Response b): The proposed Project is an infrastructure/roadway project that is surrounded by light industrial and agricultural uses. The proposed Project would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted).

Project construction would add additional impervious surfaces to the Project site; however, most of the Project site would remain largely pervious, which would allow infiltration to underlying groundwater. Therefore, project construction and operation would not substantially deplete or interfere with groundwater supply or quality. This impact would be ***less than significant***.

Responses c.i), c.ii), c.iii): Less than Significant. When land is in a natural or undeveloped condition, soils, mulch, vegetation, and plant roots absorb rainwater. This absorption process is called infiltration or percolation. Much of the rainwater that falls on natural or undeveloped land slowly infiltrates the soil and is stored either temporarily or permanently in underground layers of soil. When the soil becomes completely soaked or saturated with water or the rate of rainfall exceeds the infiltration capacity of the soil, the rainwater begins to flow on the surface of land to low lying areas, ditches, channels, streams, and rivers. Rainwater that flows off a site is defined as storm water runoff. When a site is in a natural condition or is undeveloped, a larger percentage of rainwater infiltrates into the soil and a smaller percentage flows off the Project site as storm water runoff.

The infiltration and runoff processes are altered when a site is developed. Buildings, sidewalks, roads, and parking lots introduce asphalt, concrete, and roofing materials to the landscape. These materials are relatively impervious, which means that they absorb less rainwater. As impervious surfaces are added to the ground conditions, the natural infiltration process is reduced. As a result, the volume and rate of storm water runoff increases. The increased volumes and rates of storm water runoff can result in flooding if adequate storm drainage facilities are not provided.

Implementation of the proposed Project would result in the development of new improvements on undeveloped agricultural lands, while a portion of Alternatives II and III would be predominately on existing developed land. Bare soils, common within farmlands, are more susceptible to erosion than an already developed urban land, thus it is expected erosion could occur on any of the three alternative sites. During construction activities, and in compliance with the proposed Project's SWPPP, construction-related erosion controls and BMPs would be implemented to reduce potential impacts related to erosion and siltation. These BMPs would include, but are not limited to, covering and/or binding soil surfaces to prevent soil from being detached and transported by water or wind, and the use of barriers such as straw wattles, silt fences, and sandbags to control sediment. Together, the controls and BMPs are intended to limit soil transportation and erosion.

Each alternative of the proposed Project includes the construction or reconstruction of a stormwater basins, which would be required to comply with City regulations and would be reviewed by the City of Atwater. Through the review and approval process, future development associated with the proposed Project would be reviewed and conditioned for compliance with the General Construction Permit, BMPs, Atwater Municipal Code Chapter 13.22 "Storm Water Management and Discharge Control," the City of Atwater Stormwater Post-Construction Standards Plan, and approved grading and drainage plans. Therefore, the review and approval process conducted by the City would ensure that surface runoff is controlled in a manner which would not exceed capacity or contribute to additional sources of polluted runoff.

The construction of the proposed Project facilities would not substantially alter the existing drainage pattern of the area, or alter the course of a stream or river, in a manner that would result in substantial erosion or siltation, substantially increase the rate or amount of surface runoff in a manner that would result in flooding, or create or contribute runoff water which would exceed the capacity of existing or planned drainage systems or provide substantial additional sources of polluted runoff. Although the construction of the proposed Project would increase impervious surfaces, the proposed Project would not impede flood flows since the proposed stormwater basins in all identified alternatives would increase the amount of runoff/flood flow that the Project site can accommodate. The existing stormwater drainage system would be slightly altered as part of the proposed Project. Each alternative is designed with storm drainage systems that include basins that ultimately discharge into the Atwater Canal. Implementation of the proposed Project is not expected to substantially change the topography of the Project site and therefore would not be expected to impede or redirect flood flows. In addition, the review and approval process conducted by the City would ensure that surface runoff is controlled.

Therefore, implementation of the proposed Project would have a ***less than significant*** impact relative to this topic.

Response d): The Project site is designated as Unshaded Zone X on the most recent Flood Insurance Rate Map (FIRM) Nos. 06047C0400G and 06047C0405G, both dated December 2, 2008. Unshaded Zone X is the area determined to be outside the 500-year flood and protected by levee from 100-year flood. Furthermore, the proposed Project is not located within a 100-year or 200-year flood zone.

As shown in Figure 16, minor portions of the Project site are located within a dam inundation area for the New Exchequer Dam/Lake McClure. Dam failure is generally a result of structural instability caused by improper design or construction, instability resulting from seismic shaking, or overtopping and erosion of the dam. Larger dams that are higher than 25 feet or with storage capacities over 50 acre-feet of water are regulated by the California Dam Safety Act, which is implemented by the California Department of Water Resources, Division of Safety of Dams (DSD). The DSD is responsible for inspecting and monitoring these dams. The Act also requires that dam owners submit to the California Office of Emergency Services inundation maps for dams that would cause significant loss of life or personal injury because of dam failure. The Merced County Office of Emergency Services is responsible for developing and implementing a Dam Failure Plan that designates evacuation plans, the direction of floodwaters, and provides emergency information.

Regular inspection by DSD and maintenance by the dam owners ensure that the dams are kept in safe operating condition. As such, failure of these dams is considered to have an extremely low probability of occurring and is not considered to be a reasonably foreseeable event.

The proposed Project would not expose people or structures to a significant risk of loss, injury or death involving flooding because of the failure of a levee or dam. Since the proposed Project is an infrastructure/roadway project, release of pollutants due to project inundation is unlikely, either during project construction or operation.

The Project site is not anticipated to be inundated by a tsunami because it is located at an elevation of approximately 19 to 30 feet above sea level and is not near the Pacific Ocean which is the closest ocean waterbody.

The Project site is not anticipated to be inundated by a seiche because it is not near a water body capable of creating a seiche.

Therefore, implementation of the proposed Project would have a ***less than significant*** impact relative to flood hazards, seiches, and tsunamis, or the risk of release of pollutants due to inundation.

Response e): The Project site is located within the jurisdiction of the Merced Irrigation-Urban GSA and is therefore subject to the 2019 Merced Groundwater Subbasin GSP. As described above, the proposed Project would not decrease groundwater supplies or interfere substantially with groundwater recharge. In addition, the GSP anticipates that implementation of the GSP would reinforce Atwater's General Plan goals in addition to the groundwater quality monitoring and remediation described therein. Therefore, based on compliance with such plans, it can be determined that the proposed Project would not conflict with or obstruct implementation of water quality control plans or sustainable groundwater management plans. For these reasons, the proposed Project would have a ***less than significant*** impact relative to this environmental topic.

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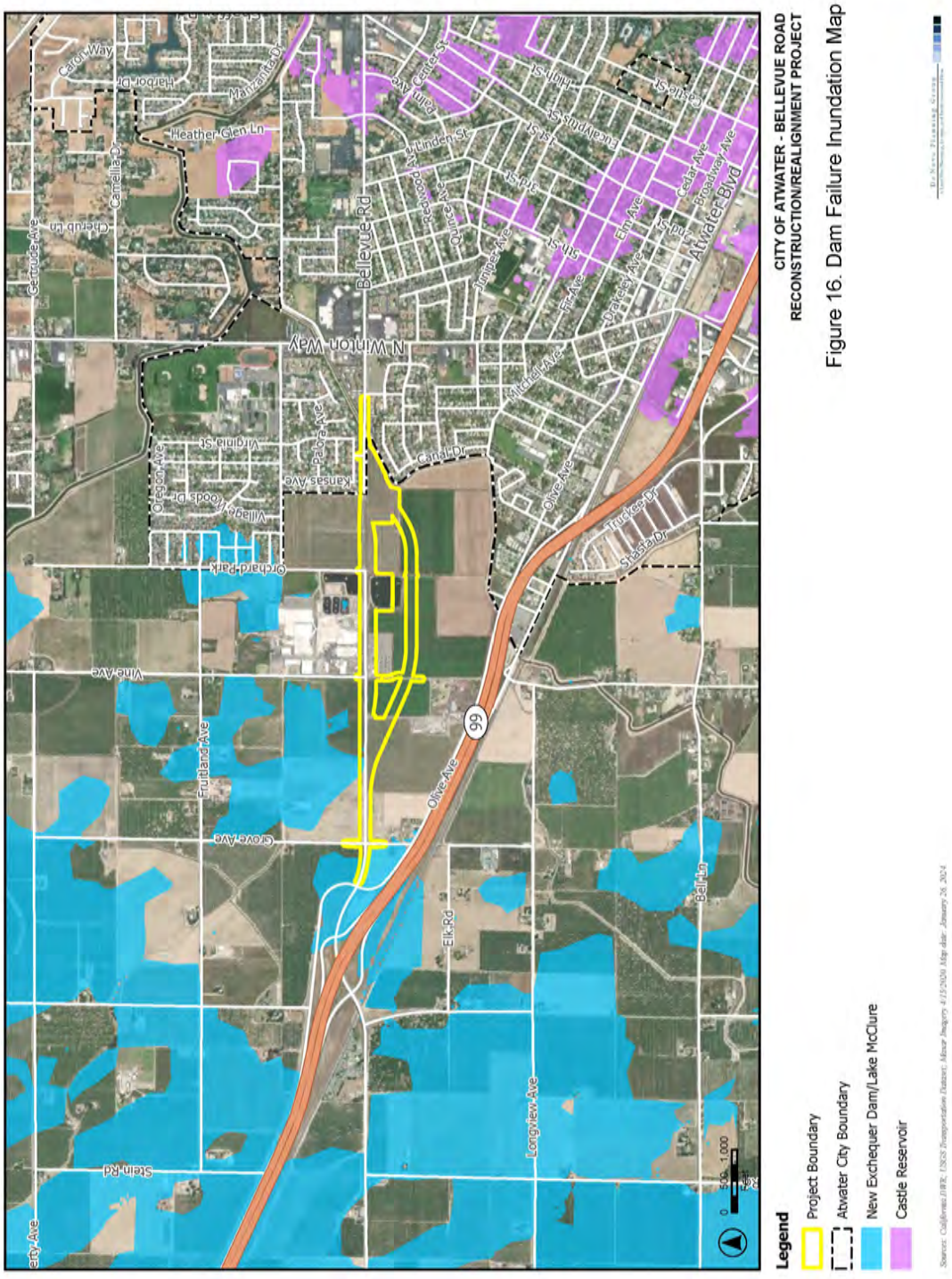

Figure 16. Dam Failure Inundation Map

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XI. LAND USE AND PLANNING

Would The proposed Project:	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Physically divide an established community?			X	
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?			X	

Responses to Checklist Questions

Response a): The proposed Project is located on the existing Bellevue Road between Olive Avenue and Grove Avenue to the west and the intersection of Parade Street and Bellevue Road to the east. The Project site is located mostly outside the Atwater city limits within the Atwater Sphere of Influence and is adjacent primarily to existing industrial and agricultural uses.

Typically, physical division of an established community is associated with new, intersecting roadways, or new incompatible uses inconsistent with the planned or existing land uses. As discussed in the Project Description, the proposed Project would restore Bellevue Road as a major entry to the northern portion of the City of Atwater, providing a direct route between SR-99, the City of Atwater and the Castle Commerce Center to the east.

Furthermore, existing established communities currently exist north of Bellevue Road, within the city limits of the City of Atwater, and south of the Atwater Canal, within the city limits of the City of Atwater.

Alternative I

Alternative I entails realigning Bellevue Road south of the Dole Packaged Foods campus between just west of Grove Avenue and the Atwater Canal and reconstruction/restriping between Gipson Street and Parade Street. Bellevue Road would be widened to four lanes beginning between Olive Avenue and Grove Avenue to the west and conform to the existing four-lane with a two-way left turn lane condition to the east.

Alternative I would shift the roadway alignment about 750 feet south of the existing Bellevue Road. The proposed alignment would still cut through the Dole Packaged Foods agricultural land, but would not physically divide the parking areas from the plant buildings. This alternative also avoids impacts to the Dole basin locations.

The realigned Bellevue Road would reconnect to existing roads to ensure there is no permanent physical division of the community. This would include improvements to the Grove Avenue, Vine Avenue, Orchard Park Avenue, the existing Bellevue Road, and Gipson Street to maintain access for all travelers.

This alternative is not anticipated to physically divide an established community, but instead includes design elements to ensure all access is maintained for existing travelers, and that avoidance measures are taken to ensure that the parking and building areas at the Dole plant are not divided by a roadway. Overall, the proposed Project would serve as a connector for the existing community, providing an east to west connection via Bellevue Road that does not currently exist. Implementation of this alternative would have a ***less than significant*** impact relative to this topic.

Alternative II

Alternative II entails widening along the existing Bellevue Road alignment between Grove Avenue and the Atwater Canal and reconstruction/restriping between Gipson Street and Parade Street. Bellevue Road would be widened to four lanes beginning between Olive Avenue and Grove Avenue to the West and conform to the existing four-lane with a two-way left turn lane condition to the East.

In comparison to Alternative I, the proposed Alternative II alignment reduces impacts to Dole Packaged Foods agricultural land but introduces impacts to their basin locations, parking lots and buildings. The alignment would physically divide the existing Dole employee parking area (areas located east of Vine Avenue on the north and south side of the road) from the Dole plant buildings located north of Bellevue Road. Because of the physical division, there would be a need to reconfigure the parking area to ensure that employees parking south of Bellevue could access the Dole plant buildings located north of Bellevue Road. This would likely require a signal with crosswalk, or a bridge configuration that would facilitate pedestrian movement from the parking area north to the main Dole campus.

This alignment would also affect truck accessibility of the plant as it cuts through the existing Dole truck staging area. The Dole International pond on the north side of Bellevue would be affected by this alignment, which would require regrading and relocating the pond.

This alternative has the potential to physically divide portions of the existing Dole campus, namely the parking area and a pond. Implementation of the following Mitigation Measure would ensure that this alternative would have a ***less than significant*** impact relative to this topic.

Mitigation Measure

Mitigation Measure (ALT-2) LAND-1*: Prior to the commencement of construction activities, the project proponent shall implement the following:*

- *The project proponent shall design and include on project improvement plans a safety pedestrian crossing across Bellevue Road, connecting the parking area to the main facility of the Dole Packaged Food facility. The pedestrian crossing shall comply with applicable safety standards and guidelines, including signage, crosswalk markings, and necessary traffic control measures as required by the standards of the City of Atwater.*
- *The project proponent shall engage in pond relocation efforts. This may include the relocation of the entire pond or a portion thereof, ensuring that the total pond capacity is not diminished. The relocation process shall be conducted in accordance with all relevant environmental regulations and permits, if applicable.*
- *As an alternative, the project proponent and Dole International can develop a parking plan that achieves alternative safe access for pedestrians through an alternative parking location, or other designs.*

The project proponent shall submit the improvement plans and specifications for the safety pedestrian crossing and pond relocation to the City of Atwater Engineer for review and approval.

Alternative III

Alternative III entails realigning Bellevue Road just south of the Dole Packaged Foods campus and the existing roadway alignment between just west of Grove Avenue and the Atwater Canal and reconstruction/restriping between Gipson Street and Parade Street. Bellevue Road would be

widened to four lanes beginning between Olive Avenue and Grove Avenue to the West and conform to the existing four-lane with a two-way left turn lane condition to the East.

In comparison to Alternative I, the proposed Alternative III alignment reduces impacts to Dole Packaged Foods agricultural land but, like Alternative II, introduces impacts to their basin locations, parking lots and buildings. The alignment would physically divide the existing Dole employee parking area (areas located east of Vine Avenue on the north and south side of the road) from the Dole plant buildings located north of Bellevue Road. Because of the physical division, there would be a need to reconfigure the parking area to ensure that employees parking south of Bellevue could access the Dole plant buildings located north of Bellevue Road. This would likely require a signal with crosswalk, or a bridge configuration that would facilitate pedestrian movement from the parking area north to the main Dole campus.

Like Alternative I, the realigned Bellevue Road would reconnect to existing roads to ensure there is no permanent physical division of the community. This would include improvements to the Grove Avenue, Vine Avenue, Orchard Park Avenue, the existing Bellevue Road, and Gipson Street to maintain access for all travelers.

This alternative has the potential to physically divide portions of the existing Dole campus, namely the parking area and a pond. Implementation of the following Mitigation Measure would ensure that this alternative would have a ***less than significant*** impact relative to this topic.

Mitigation Measure

Mitigation Measure (ALT-3) LAND-1*: Prior to the commencement of construction activities, the project proponent shall implement the following:*

- *The project proponent shall design and include on project improvement plans a safety pedestrian crossing across Bellevue Road, connecting the parking area to the main facility of the Dole Packaged Food facility. The pedestrian crossing shall comply with applicable safety standards and guidelines, including signage, crosswalk markings, and necessary traffic control measures as required by the standards of the City of Atwater.*
- *The project proponent shall engage in pond relocation efforts. This may include the relocation of the entire pond or a portion thereof, ensuring that the total pond capacity is not diminished. The relocation process shall be conducted in accordance with all relevant environmental regulations and permits, if applicable.*
- *As an alternative, the project proponent and Dole International can develop a parking plan that achieves alternative safe access for pedestrians through an alternative parking location, or other designs.*

The project proponent shall submit the improvement plans and specifications for the safety pedestrian crossing and pond relocation to the City of Atwater Engineer for review and approval.

Response b): The key planning documents that are directly related to, or that establish a framework within which the proposed Project must be consistent, include:

- City of Atwater General Plan;
- City of Atwater Municipal Code;
- Merced County General Plan;
- Merced Country Code of Ordinances.

City of Atwater General Plan designated land uses within the Project area include Low Density Residential, High Density Residential, Path/Park, Commercial, and Business Park. Given that most of the Project area is outside the city limits, there is no zoning designation.

The Merced County General Plan designated land uses within the Project area include Agricultural. The Project area is zoned Residential Single-Family (R-1) and General Agriculture (A-1) by the Merced County Zoning Map.

Most of the Project site is outside of the City of Atwater; but within its Sphere of Influence. The Merced County General Plan includes an "Urban Designation" for the Project Area.

In addition, the City of Atwater General Plan Circulation Element identifies Bellevue Road as having fixed interrupted flow facilities, such as stop signs and signalized intersections, that cause an interruption in the flow of traffic[8].The proposed Project would restore Bellevue Road as a major entry to the northern portion of the City of Atwater, and provide a direct route between SR-99, the City of Atwater, and the Castle Commerce Center to the east.. Furthermore, the Circulation element contains policies that are applicable to the proposed Project:

Policy CIRC-4.1. Support efforts to implement the projects proposed in the MIS, which includes improvements to the 99/Applegate interchange, extension of Bellevue Road to the west, and the creation of a new interchange at SR 99/Westside Boulevard.

The proposed Project would not require changes to the existing land use or zoning designations established within the General Plan and Zoning Ordinance. The proposed Project is a roadway that is supportive of the existing land uses and policy directives of the General Plan Circulation Element, by providing a direct route from the SR 99/Westside Boulevard interchange to the City and to the Castle Commerce Center. Overall, the proposed project is designed to improve accessibility and mobility of goods and persons, reduce travel time, reduce vehicle miles traveled, and improve pedestrian and bicycle facilities for the community. Implementation of the proposed Project would have a ***less than significant*** impact relative to this topic.

[8] City of Atwater, California. City of Atwater 2000 General Plan Circulation Element. Pg. 3-5.

XII. MINERAL RESOURCES

Would The proposed Project:	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?			X	
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?			X	

Existing Setting

The California Geological Survey identifies areas that contain or that could contain significant mineral resources to provide context for local agency land use decisions and to protect availability of known mineral resources. Classifications ranging from MRZ-1 to MRZ-4 are based on knowledge of a resource's presence and the quality of the resource. No mineral extraction operations are known to exist in or adjacent to the Project site. The Project site is designated within Mineral Resource Zone 4 (MRZ-4), as delineated by the Mineral Resources and Mineral Hazards Mapping Program (MRMHMP) (California Department of Conservation, 2012). MRZ-4 is defined by the MRMHMP as being in areas where available geologic information is inadequate to assign to any other mineral resource zone category.

Responses to Checklist Questions

Responses a), b): The Project site is mapped as being located within Mineral Resource Zone 4 (MRZ-4), as delineated by the Mineral Resources and Mineral Hazards Mapping Program (MRMHMP). MRZ-4 is defined by the MRMHMP as being in areas where adequate information indicates that no significant mineral deposits are present, or where available geologic information is inadequate to assign to any other mineral resource zone category. The proposed Project would not result in substantial subsurface excavation and would not preclude future exploration for, and extraction of, mineral resources. Further, the Project site is not delineated in the General Plan, a Specific Plan, or other land use plan as a locally important mineral resource recovery site, thus it would not result in the loss of availability of a locally important mineral resource. Therefore, the proposed Project would not result in the loss of an available known mineral resources nor result in the loss of availability of locally-important mineral resource recovery sites delineated in a local general plan, specific plan, or other land use plan. Additionally, there are no oil and gas extraction wells within or near the Project area. Therefore, the impact is ***less than significant*** to this environmental topic.

XIII. NOISE

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the proposed Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?		X		
b) Generation of excessive groundborne vibration or groundborne noise levels?			X	
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the proposed Project expose people residing or working in the proposed Project area to excessive noise levels?				X

Fundamentals of Acoustics

The Bellevue Road Reconstruction/Realignment – Environmental Noise Assessment analysis was prepared by the acoustic consultant (Saxelby Acoustics) and used throughout this section to support the analysis. The study is included as Appendix B to this document.

Acoustics is the science of sound. Sound may be thought of as mechanical energy of a vibrating object transmitted by pressure waves through a medium to human (or animal) ears. If the pressure variations occur frequently enough (at least 20 times per second), then they can be heard and are called sound. The number of pressure variations per second is called the frequency of sound, and is expressed as cycles per second or Hertz (Hz).

Noise is a subjective reaction to different types of sounds. Noise is typically defined as (airborne) sound that is loud, unpleasant, unexpected, or undesired, and may therefore be classified as a more specific group of sounds. Perceptions of sound and noise are highly subjective from person to person.

Measuring sound directly in terms of pressure would require a very large range of numbers. The decibel (dB) scale is used to facilitate graphical visualization of large ranges of numbers. The decibel scale uses the hearing threshold (20 micropascals), as a point of reference, defined as 0 dB. Other sound pressures are then compared to this reference pressure, and the logarithm is taken to keep the numbers in a graphically practical range. The decibel scale allows a million-fold increase in pressure to be expressed as 120 dB, and changes in levels correspond closely to human perception of relative loudness.

The perceived loudness of sounds is dependent upon many factors, including sound pressure level and frequency content. However, within the usual range of environmental noise levels, perception of loudness is relatively predictable, and can be approximated by A-weighted sound levels. There is a strong correlation between A-weighted sound levels (expressed as dBA) and the way the human ear perceives sound. For this reason, the A-weighted sound level has become the

standard tool of environmental noise assessment. All noise levels reported in this section are in terms of A-weighted levels and are expressed in units of dBA, unless otherwise noted.

The decibel scale is logarithmic, not linear. In other words, two sound power levels 10 dB apart differ in acoustic energy by a factor of 10. When the standard logarithmic decibel is A-weighted, an increase of 10 dBA is generally perceived as a doubling in loudness. For example, a 70 dBA sound is half as loud as an 80 dBA sound, and twice as loud as a 60 dBA sound.

Community noise is commonly described in terms of the ambient noise level, which is defined as the all-encompassing noise level associated with a given environment. A common statistical tool to measure the ambient noise level is the average, or equivalent, sound level (Leq), which corresponds to a steady-state A weighted sound level containing the same total energy as a time varying signal over a given time period (usually one hour). The Leq is the foundation of the composite noise descriptor, L_{dn}, and shows very good correlation with community response to noise.

The day/night average level (L_{dn}) is based upon the average noise level over a 24-hour day, with a +10-decibel weighing applied to noise occurring during nighttime (10:00 p.m. to 7:00 a.m.) hours. The nighttime penalty is based upon the assumption that people react to nighttime noise exposures as though they were twice as loud as daytime exposures. Because L_{dn} represents a 24-hour average, it tends to disguise short-term variations in the noise environment. CNEL is like L_{dn}, but includes a +5 dBA and nighttime hours weighted by +10 dBA. Table NOISE-1 lists several examples of the noise levels associated with common situations.

Table NOISE-1: Typical Noise Levels

Common Outdoor Activities	*Noise Level (dBA)*	*Common Indoor Activities*
	--110--	Rock Band
Jet Fly-over at 300 m (1,000 ft)	--100--	
Gas Lawn Mower at 1 m (3 ft)	--90--	
Diesel Truck at 15 m (50 ft), at 80 km/hr (50 mph)	--80--	Food Blender at 1 m (3 ft) Garbage Disposal at 1 m (3 ft)
Noisy Urban Area, Daytime Gas Lawn Mower, 30 m (100 ft)	--70--	Vacuum Cleaner at 3 m (10 ft)
Commercial Area Heavy Traffic at 90 m (300 ft)	--60--	Normal Speech at 1 m (3 ft)
Quiet Urban Daytime	--50--	Large Business Office
Quiet Urban Nighttime	--40--	Theater, Large Conference Room
Quiet Suburban Nighttime	--30--	Library
Quiet Rural Nighttime	--20--	Bedroom at Night, Concert Hall
	--10--	Broadcast/Recording Studio
Lowest Threshold of Human Hearing	--0--	Lowest Threshold of Human Hearing

SOURCE: CALTRANS, TECHNICAL NOISE SUPPLEMENT, TRAFFIC NOISE ANALYSIS PROTOCOL. SEPTEMBER, 2013.

Effects of Noise on People

The effects of noise on people can be placed in three categories:

- Subjective effects of annoyance, nuisance, and dissatisfaction;
- Interference with activities such as speech, sleep, and learning; and

- Physiological effects such as hearing loss or sudden startling.

Environmental noise typically produces effects in the first two categories. Workers in industrial plants can experience noise in the last category. There is no completely satisfactory way to measure the subjective effects of noise or the corresponding reactions of annoyance and dissatisfaction. A wide variation in individual thresholds of annoyance exists and different tolerances to noise tend to develop based on an individual's past experiences with noise.

Thus, an important way of predicting a human reaction to a new noise environment is the way it compares to the existing environment to which one has adapted: the so-called ambient noise level. In general, the more a new noise exceeds the previously existing ambient noise level, the less acceptable the new noise would be judged by those hearing it.

With regard to increases in A-weighted noise level, the following relationships occur:

- Except in carefully controlled laboratory experiments, a change of 1 dBA cannot be perceived;
- Outside of the laboratory, a 3 dBA change is considered a just-perceivable difference;
- A change in level of at least 5 dBA is required before any noticeable change in human response would be expected; and
- A 10 dBA change is subjectively heard as approximately a doubling in loudness, and can cause an adverse response.

Stationary point sources of noise – including stationary mobile sources such as idling vehicles – attenuate (lessen) at a rate of approximately 6 dBA per doubling of distance from the source, depending on environmental conditions (i.e. atmospheric conditions and either vegetative or manufactured noise barriers, etc.). Widely distributed noises, such as a large industrial facility spread over many acres, or a street with moving vehicles, would typically attenuate at a lower rate.

Existing Noise Receptors

Stationary point sources of noise – including stationary mobile sources such as idling vehicles – attenuate (lessen) at a rate of approximately 6-dB per doubling of distance from the source, depending on environmental conditions (i.e. atmospheric conditions and either vegetative or manufactured noise barriers, etc.). Widely distributed noises, such as a large industrial facility spread over many acres or a street with moving vehicles, would typically attenuate at a lower rate. Some land uses are considered more sensitive to noise than others. Land uses often associated with sensitive receptors generally include residences, schools, libraries, hospitals, and passive recreational areas. Sensitive noise receptors may also include threatened or endangered noise-sensitive biological species, although many jurisdictions have not adopted noise standards for wildlife areas. Noise sensitive land uses are typically given special attention to achieve protection from excessive noise.

Sensitivity is a function of noise exposure (in terms of both exposure duration and insulation from noise) and the types of activities involved. Near the Project site, sensitive land uses include existing single family residential uses located near the west and east ends of the Project site.

Regulatory Setting – Atwater General Plan

The City of Atwater General Plan Noise Element contains policies for assessing noise impacts within the City. Listed below are the noise policies that are applicable to the proposed Project:

Policies

NO-2.4. General Plan Policy NO-2.4. Mitigate noise created by new transportation noise sources consistent with the levels specified in Table 6-6 (Table NOISE-2) in outdoor activity areas or interior spaces of existing noise-sensitive land uses.

Table NOISE-2: Maximum Allowable Noise Exposure Transportation Noise Sources

Land Use	*Outdoor Activity Areas1 L_{dn}/CNEL, dBA*	*Interior Spaces*	
		L_{dn}/CNEL, dBA	*L_{eq}[1], dBA[2]*
Residential	60[3]	45	--
Transient Lodging	60[3]	45	--
Hospitals, Nursing Homes	60[3]	45	--
Theaters, Auditoriums, Music Halls	60[3]	--	35
Churches, Meeting Halls	60[3]	--	40
Office Buildings	--	--	45
Schools, Libraries, Museums	60[3]	--	45
Playgrounds, Neighborhood Parks	70	--	--

NOTES:

1. *1THE EXTERIOR NOISE-LEVEL STANDARD SHALL BE APPLIED TO THE OUTDOOR ACTIVITY AREA OF THE RECEIVING LAND USE. OUTDOOR ACTIVITY AREAS ARE NORMALLY LOCATED NEAR OR ADJACENT TO THE MAIN STRUCTURE AND OFTEN OCCUPIED BY PORCHES, PATIOS, BALCONIES, ETC. 2 3*
2. *2AS DETERMINED FOR A TYPICAL WORST-CASE HOUR DURING PERIODS OF USE.*
3. *3WHERE IT IS NOT POSSIBLE TO REDUCE THE NOISE IN OUTDOOR ACTIVITY AREAS TO 60 DBA, LDN /CNEL OR LESS USING A PRACTICAL APPLICATION OF THE BEST AVAILABLE NOISE REDUCTION MEASURES, AN EXTERIOR NOISE LEVEL OF UP TO 65 DBA, LDN /CNEL MAY BE ALLOWED, PROVIDED THAT PRACTICAL EXTERIOR NOISE LEVEL REDUCTION MEASURES HAVE BEEN IMPLEMENTED AND THAT INTERIOR NOISE LEVELS ARE IN COMPLIANCE WITH THIS TABLE.*

SOURCE: ATWATER GENERAL PLAN.

NO-2.5. Consider the significance of noise level increases associated with major roadway improvement projects prior to construction. In instances where mitigation will not reduce noise volumes to the levels recommended in Table 6-6 (Table NOISE-2), the following criteria should be used as a test of significance for roadway improvement projects:

a) Where existing traffic noise levels are less than 60 dB Ldn, in the outdoor activity areas of noise-sensitive uses, roadway improvement projects which increase noise levels to 60 dB Ldn will not be considered significant.

b) Where existing traffic noise levels range between 60 and 65 dB Ldn in the outdoor activity areas of noise-sensitive land uses, a +3 dB Ldn increase in noise levels due to a roadway improvement project will be considered significant.
c) Where existing traffic noise levels are greater than 65 dB Ldn in the outdoor activity areas on noise-sensitive uses, a +1.5 dB Ldn increase in noise levels due to a roadway improvement project will be considered significant.

Regulatory Setting – Merced County General Plan

The following noise level standards have been developed to quantify noise impacts in the County. Table HS-1 (reproduced below as Table NOISE-3) shows the noise level standards for noise-sensitive areas affected by traffic, railroad, or airport noise sources in the County. Table HS-2 shows the interior and exterior noise level standards for noise sensitive areas affected by existing non-transportation noise sources in the County. In addition to these standards, the policies in this section address ways to reduce or eliminate existing and future conflicts between land uses and noise.

Table NOISE-3: Noise Standards for New Uses Affected by Traffic, Railroad, and Airport Noise

New Land Use	***Sensitive[1] Outdoor Area (L_{dn})***	***Sensitive Interior[2] Area (L_{dn})***	***Notes***
All Residential	65	45	3
Transient Lodging	65	45	3, 4
Hospitals, Nursing Homes	65	45	3, 4, 5
Theaters, Auditoriums, Music Halls	--	35	4
Churches, Meeting Halls, Schools, Libraries, etc.	65	40	4
Office Buildings	65	45	4
Commercial Buildings	--	50	4
Playgrounds, Parks, etc.	70	--	--
Industry	65	50	4

NOTES:

1. *SENSITIVE OUTDOOR AREAS INCLUDE PRIMARY OUTDOOR ACTIVITY AREAS ASSOCIATED WITH ANY GIVEN LAND USE AT WHICH NOISE-SENSITIVITY EXISTS AND THE LOCATION AT WHICH THE COUNTY'S EXTERIOR NOISE LEVEL STANDARDS ARE APPLIED.*
2. *SENSITIVE INTERIOR AREAS INCLUDES ANY INTERIOR AREA ASSOCIATED WITH ANY GIVEN LAND USE AT WHICH NOISE SENSITIVITY EXISTS AND THE LOCATION AT WHICH THE COUNTY'S INTERIOR NOISE LEVEL STANDARDS ARE APPLIED. EXAMPLES OF SENSITIVE INTERIOR SPACES INCLUDE, BUT ARE NOT LIMITED TO, ALL HABITABLE ROOMS OF RESIDENTIAL AND TRANSIENT LODGING FACILITIES, HOSPITAL ROOMS, CLASSROOMS, LIBRARY INTERIORS, OFFICES, WORSHIP SPACES,*

THEATERS. INTERIOR NOISE LEVEL STANDARDS ARE APPLIED WITHIN NOISE-SENSITIVE AREAS OF THE VARIOUS LAND USES WITH WINDOWS AND DOORS IN THE CLOSED POSITIONS.

3. *RAILROAD WARNING HORN USAGE SHALL NOT BE INCLUDED IN THE COMPUTATION OF LDN.*
4. *ONLY THE INTERIOR NOISE LEVEL STANDARD SHALL APPLY IF THERE ARE NO SENSITIVE EXTERIOR SPACES PROPOSED FOR THESE USES.*
5. *SINCE HOSPITALS ARE OFTEN NOISE-GENERATING USES, THE EXTERIOR NOISE LEVEL STANDARDS ARE APPLICABLE ONLY TO CLEARLY IDENTIFIED AREAS DESIGNATED FOR OUTDOOR RELAXATION BY EITHER HOSPITAL STAFF OR PATIENTS.*

SOURCE: MERCED COUNTY GENERAL PLAN.

Policies

HS-7.9. **Transportation Project Construction/Improvements (RDR).** Require transportation project proponents to prepare all acoustical analysis for all roadway and railway construction projects in accordance with Policy HS-7.2; additionally, rail projects shall require the preparation of a groundborne vibration analysis in accordance with Policy HS 7.2. Consider noise mitigation measures to reduce traffic and/or rail noise levels to comply with Table HS-1 standards if pre-project noise levels already exceed the noise standards of Table HS-1 and the increase is significant. The County defines a significant increase as follows:

Pre-Project Noise Environment (L_{dn})	Significant Increase
Less than 60 dB	5+ dB
60 – 65 dB	3+ dB
Greater than 65 dB	1.5+ dB

Criteria for Acceptable Vibration

Vibration is like noise in that it involves a source, a transmission path, and a receiver. While vibration is related to noise, it differs in that noise is generally considered to be pressure waves transmitted through air, whereas vibration usually consists of the excitation of a structure or surface. As with noise, vibration consists of an amplitude and frequency. A person's perception to the vibration would depend on their individual sensitivity to vibration, as well as the amplitude and frequency of the source and the response of the system which is vibrating.

Vibration can be measured in terms of acceleration, velocity, or displacement. A common practice is to monitor vibration measures in terms of peak particle velocities in inches per second. Standards pertaining to perception as well as damage to structures have been developed for vibration levels defined in terms of peak particle velocities.

Human and structural response to different vibration levels is influenced by several factors, including ground type, distance between source and receptor, duration, and the number of perceived vibration events. Table NOISE-4, which was developed by Caltrans, shows the vibration levels which would normally be required to result in damage to structures. The vibration levels are presented in terms of peak particle velocity in inches per second.

Table NOISE-4 indicates that the threshold for architectural damage to structures is 0.20 in/sec p.p.v. A threshold of 0.20 in/sec p.p.v. is a reasonable threshold for short-term construction projects. Table NOISE-5 shows the typical vibration levels produced by construction equipment.

Table NOISE-4: Effects of Vibration on People and Buildings

Peak Particle Velocity		*Human Reaction*	*Effect on Buildings*
mm/sec.	*in./sec.*		
0.15-0.30	0.006-0.019	Threshold of perception; possibility of intrusion	Vibrations unlikely to cause damage of any type
2.0	0.08	Vibrations readily perceptible	Recommended upper level of the vibration to which ruins and ancient monuments should be subjected
2.5	0.10	Level at which continuous vibrations begin to annoy people	Virtually no risk of "architectural" damage to normal buildings
5.0	0.20	Vibrations annoying to people in buildings (this agrees with the levels established for people standing on bridges and subjected to relative short periods of vibrations)	Threshold at which there is a risk of "architectural" damage to normal dwelling - houses with plastered walls and ceilings. Special types of finish such as lining of walls, flexible ceiling treatment, etc., would minimize "architectural" damage
10-15	0.4-0.6	Vibrations considered unpleasant by people subjected to continuous vibrations and unacceptable to some people walking on bridges	Vibrations at a greater level than normally expected from traffic, but would cause "architectural" damage and possibly minor structural damage.

SOURCE: CALTRANS. TRANSPORTATION RELATED EARTHBORN VIBRATIONS. TAV-02-01-R9601 FEBRUARY 20, 2002.

Table NOISE-5: Vibration Levels for Varying Construction Equipment

Type of Equipment	*Peak Particle Velocity @ 25 feet (inches/second)*	*Peak Particle Velocity @ 100 feet (inches/second)*
Large Bulldozer	0.089	0.011
Loaded Trucks	0.076	0.010
Small Bulldozer	0.003	0.000
Auger/drill Rigs	0.089	0.011
Jackhammer	0.035	0.004
Vibratory Hammer	0.070	0.009
Vibratory Compactor/roller	0.210	0.026

SOURCE: FEDERAL TRANSIT ADMINISTRATION, TRANSIT NOISE AND VIBRATION IMPACT ASSESSMENT GUIDELINES, MAY 2006

Regulatory Setting – Atwater Construction Noise Ordinance

8.44.050 Construction

Permissible Hours of Construction. All construction for which a grading or building permit is required shall be conducted between the hours of 7:00 a.m. and 7:00 p.m., Monday through Friday, and 9:00 a.m. and 5:00 p.m. Saturdays and Sundays. For purposes of this section, "construction" or "construction activity" shall include site preparation, demolition, grading, excavation, and the erection, improvement, remodeling, or repair of structures, including operation of equipment or machinery and the delivery of materials associated with those activities.

R*esponses to Checklist Questions*

Response a): The proposed Project has the potential to generate an increase in temporary ambient noise from project construction activities, and an increase in permanent ambient noise during traffic increases.

Traffic Noise Increases at Off-Site Receptors

Traffic Noise Increases at Off-Site Receptors Based upon the City of Atwater Policy NO-2.5, where existing traffic noise levels are greater than 65 dBA Ldn, at the outdoor activity areas of noise-sensitive uses, a +1.5 dBA Ldn increase in roadway noise levels would be considered significant. Where traffic noise levels are between 60 dBA Ldn and 65 dBA Ldn, a +3.0 dB Ldn increase in roadway noise levels would be considered significant. Where traffic noise levels are less than 60 dBA Ldn, roadway improvement projects which increase noise levels to over 60 dB Ldn would be considered significant.

It should be noted that there are noise sensitive receptors adjacent to the proposed project, based upon the Merced County Policy HS-7.9, where existing traffic noise levels are greater than 65 dBA Ldn, at the outdoor activity areas of noise-sensitive uses, a +1.5 dBA Ldn increase in roadway noise levels would be considered significant. Where traffic noise levels are between 60 dBA Ldn and 65 dBA Ldn, a +3.0 dB Ldn increase in roadway noise levels would be considered significant. Where traffic noise levels are less than 60 dBA Ldn, a +5.0 dB Ldn increase in roadway.

Tables NOISE-6 through NOISE-8 list each receptor and whether project-related traffic noise increases constitute a significant impact as defined by the above-listed significance criteria. Where significant impacts are predicted the analysis includes an evaluation of whether the impact can be mitigated using quiet pavement or sound walls. Quiet pavements overlays are typically assumed to provide a 3 to 5 dBA reduction.

Table NOISE-6: Traffic Noise Impact Assessment – Alternative 1

Receiver ID	*Address*	*Existing*	*Design Year*	*Design Year Project*	*Increase*	*Criteria*	*Impact?*	*Design Year Plus Project – w/ Quiet Pavement*			*Design Year Plus Project – w/ 6' Sound Wall*		
								Change, w/Quiet Pavement	*Level w/Quiet Pavement*	*Impact w/Quiet pavement?*	*Change, w/ 6' Wall*	*Level w/ 6' Wall*	*Impact w/Wall?*
R1	4909 Grove Ave, Winton, CA 95388	65.5	65.5	65.7	0.2	+1.5 dBA	No	-3.8	61.7	No	0.2	65.7	No
R2	8470 Olive Ave, Winton, CA 95388	71.6	71.6	71.6	0.0	+1.5 dBA	No	-4.0	67.6	No	0.0	71.6	No
R3	5246 Grove Ave, Winton, CA 95388	62.3	62.3	62.3	0.1	+1.5 dBA	No	-3.9	58.4	No	0.1	62.4	No
R4	4904 Grove Ave, Winton, CA 95388	67.5	67.6	67.7	0.1	+1.5 dBA	No	-1.9	63.7	No	0.1	67.7	No
R5	4966 Grove Ave, Winton, CA 95388	65.7	65.8	66.6	0.8	+1.5 dBA	No	-0.9	62.6	No	0.8	66.6	No
R6	2492 Brodalski St, Atwater, CA 95301	59.1	59.5	61.6	2.1	>60 or +3 dBA	Yes	-2.6	57.6	No	-1.0	58.5	No
R7	2921 Mardi Gras Ct, Atwater, CA 95301	58.6	58.7	61.8	3.1	>60 or +3 dBA	Yes	-1.9	57.8	No	0.8	59.5	No
R8	2069 Bellevue Rd, Atwater, CA 95301	53.5	53.6	55.0	1.4	>60 or +3 dBA	No	-2.6	51.0	No	1.4	55.0	No
R9	2397 Crestview Dr, Atwater, CA 95301	61.7	61.7	63.8	2.1	+3 dBA	No	-1.9	59.8	No	0.5	62.2	No
R10	2397 Crestview Dr, Atwater, CA 95301	56.8	56.4	62.1	2.1	>60 or +3 dBA	Yes	1.7	58.1	No	3.4	59.8	No

R11	2387 Crestview Dr, Atwater, CA 95301	56.4	56.3	62.2	5.9	>60 or +3 dBA	Yes	1.9	58.2	No	3.5	59.8	No
R12	2371 Crestview Dr, Atwater, CA 95301	57.6	58.6	64.0	5.4	>60 or +3 dBA	Yes	1.4	60.0	No	2.9	61.5	No
R13	2347 Crestview Dr, Atwater, CA 95301	60.1	61.5	67.0	5.5	+3 dBA	Yes	1.5	63.0	No	3.0	64.5	No
R14	2298 Bellevue Rd, Atwater, CA 95301	56.3	56.8	59.6	2.8	>60 or +3 dBA	No	-1.2	55.6	No	2.8	59.6	No
R15	2238 Falcon Ct, Atwater, CA 95301	55.4	55.5	57.4	1.9	>60 or +3 dBA	Yes	-2.1	53.4	No	1.6	57.1	No
R16	2472 Brodalski St, Atwater, CA 95301	58.9	59.4	63.3	3.9	>60 or +3 dBA	Yes	-0.1	59.3	No	0.9	58.5	No
R17	2422 Brodalski St, Atwater, CA 95301	64.1	62.1	64.8	2.7	+3 dBA	Yes	-1.3	60.8	No	6.3	55.8	No
R18	2920 Virginia St, Atwater, CA 95301	62.2	61.1	64.3	3.2	+3 dBA	Yes	-0.8	60.3	No	3.0	58.1	No

NOTE: BOLD INDICATES WHERE PROJECT-RELATED TRAFFIC IS PREDICTED TO EXCEED THE INCREASE CRITERIA OR CAUSE TRAFFIC NOISE LEVELS TO EXCEED THE LOCAL EXTERIOR NOISE STANDARD.
SOURCE: SAXELBY ACOUSTICS, 2023.

Table NOISE-7: Traffic Noise Impact Assessment – Alternative 2

Receiver ID	*Address*	*Existing*	*Design Year*	*Design Year Project*	*Increase*	*Criteria*	*Impact?*	*Design Year Plus Project – w/ Quiet Pavement*			*Design Year Plus Project – w/ 6' Sound Wall*		
								Change, w/Quiet Pavement	*Level w/Quiet Pavement*	*Impact w/Quiet pavement?*	*Change, w/ 6' Wall*	*Level w/ 6' Wall*	*Impact w/Wall?*
R1	4909 Grove Ave, Winton, CA 95388	65.5	65.5	65.7	0.2	+1.5 dBA	No	-3.8	61.7	No	0.2	65.7	No
R2	8470 Olive Ave, Winton, CA 95388	71.6	71.6	71.6	0.0	+1.5 dBA	No	-4.0	67.6	No	0.0	71.6	No
R3	5246 Grove Ave, Winton, CA 95388	62.3	62.3	62.4	0.1	+1.5 dBA	No	-3.9	58.4	No	0.1	62.4	No
R4	4904 Grove Ave, Winton, CA 95388	67.5	67.6	67.7	0.1	+1.5 dBA	No	-3.9	63.7	No	0.1	67.7	No
R5	4966 Grove Ave, Winton, CA 95388	65.7	65.8	66.6	0.8	+1.5 dBA	No	-3.2	62.6	No	0.8	66.6	No
R6	2492 Brodalski St, Atwater, CA 95301	59.1	59.5	67.5	8.0	>60 or +3 dBA	**Yes**	4.0	63.5	**Yes**	2.5	62.0	No
R7	2921 Mardi Gras Ct, Atwater, CA 95301	58.6	58.7	62.2	3.5	>60 or +3 dBA	**Yes**	-0.5	58.2	No	1.0	59.7	No
R8	2069 Bellevue Rd, Atwater, CA 95301	53.5	53.6	55.1	1.5	>60 or +3 dBA	No	-2.5	51.1	No	1.4	55.0	No
R9	2397 Crestview Dr, Atwater, CA 95301	61.7	61.7	62.5	0.8	+3 dBA	No	-3.2	58.5	No	-0.3	61.4	No
R10	2397 Crestview Dr, Atwater, CA 95301	56.8	56.4	59.8	3.4	>60 or +3 dBA	**Yes**	-0.6	55.8	No	1.9	58.3	No

R11	2387 Crestview Dr, Atwater, CA 95301	56.4	56.3	61.0	4.7	>60 or +3 dBA	**Yes**	0.7	57.0	No	2.8	59.1	No
R12	2371 Crestview Dr, Atwater, CA 95301	57.6	58.6	63.2	4.6	>60 or +3 dBA	**Yes**	0.6	59.2	No	2.3	60.9	No
R13	2347 Crestview Dr, Atwater, CA 95301	60.1	61.5	65.5	4.0	+3 dBA	**Yes**	0.0	61.5	No	1.9	63.4	No
R14	2298 Bellevue Rd, Atwater, CA 95301	56.3	56.8	59.1	2.3	>60 or +3 dBA	No	-1.7	55.1	No	2.3	59.1	No
R15	2238 Falcon Ct, Atwater, CA 95301	55.4	55.5	57.5	2.0	>60 or +3 dBA	No	-2.0	53.5	No	1.7	57.2	No
R16	2472 Brodalski St, Atwater, CA 95301	58.9	59.4	67.9	8.5	>60 or +3 dBA	**Yes**	4.5	63.9	**Yes**	2.1	61.5	No
R17	2422 Brodalski St, Atwater, CA 95301	64.1	62.1	67.1	5.0	+3 dBA	**Yes**	1.0	63.1	No	-4.3	57.8	No
R18	2920 Virginia St, Atwater, CA 95301	62.2	61.1	65.8	4.7	+3 dBA	**Yes**	0.7	61.8	No	-1.8	59.3	No

NOTE: BOLD INDICATES WHERE PROJECT-RELATED TRAFFIC IS PREDICTED TO EXCEED THE INCREASE CRITERIA OR CAUSE TRAFFIC NOISE LEVELS TO EXCEED THE LOCAL EXTERIOR NOISE STANDARD.
SOURCE: SAXELBY ACOUSTICS, 2023.

Table NOISE-8: Traffic Noise Impact Assessment – Alternative 3

Receiver ID	*Address*	*Existing*	*Design Year*	*Design Year Project*	*Increase*	*Criteria*	*Impact?*	*Design Year Plus Project – w/ Quiet Pavement*			*Design Year Plus Project – w/ 6' Sound Wall*		
								Change, w/Quiet Pavement	*Level w/Quiet Pavement*	*Impact w/Quiet pavement?*	*Change, w/ 6' Wall*	*Level w/ 6' Wall*	*Impact w/Wall?*
R1	4909 Grove Ave, Winton, CA 95388	65.5	65.5	65.7	0.2	+1.5 dBA	No	-3.8	61.7	No	0.2	65.7	No
R2	8470 Olive Ave, Winton, CA 95388	71.6	71.6	71.6	0.0	+1.5 dBA	No	-4.0	67.6	No	0.0	71.6	No
R3	5246 Grove Ave, Winton, CA 95388	62.3	62.3	62.4	0.1	+1.5 dBA	No	-3.9	58.4	No	0.1	62.4	No
R4	4904 Grove Ave, Winton, CA 95388	67.5	67.6	67.7	0.1	+1.5 dBA	No	-3.9	63.7	No	0.1	67.7	No
R5	4966 Grove Ave, Winton, CA 95388	65.7	65.8	66.6	0.8	+1.5 dBA	No	-3.2	62.6	No	0.8	66.6	No
R6	2492 Brodalski St, Atwater, CA 95301	59.1	59.5	67.5	7.8	>60 or +3 dBA	**Yes**	3.8	63.3	**Yes**	2.5	61.9	No
R7	2921 Mardi Gras Ct, Atwater, CA 95301	58.6	58.7	62.2	3.5	>60 or +3 dBA	**Yes**	-0.5	58.2	No	1.0	59.7	No
R8	2069 Bellevue Rd, Atwater, CA 95301	53.5	53.6	55.1	1.5	>60 or +3 dBA	No	-2.5	51.1	No	1.4	55.0	No
R9	2397 Crestview Dr, Atwater, CA 95301	61.7	61.7	62.5	0.8	+3 dBA	No	-3.2	58.5	No	-0.3	61.5	No
R10	2397 Crestview Dr, Atwater, CA 95301	56.8	56.4	59.8	3.4	>60 or +3 dBA	**Yes**	-0.6	55.8	No	1.9	58.3	No

R11	2387 Crestview Dr, Atwater, CA 95301	56.4	56.3	61.0	4.7	>60 or +3 dBA	**Yes**	0.7	57.0	No	2.8	59.4	No
R12	2371 Crestview Dr, Atwater, CA 95301	57.6	58.6	63.2	4.6	>60 or +3 dBA	**Yes**	0.6	59.2	No	2.3	60.9	No
R13	2347 Crestview Dr, Atwater, CA 95301	60.1	61.5	65.5	4.0	+3 dBA	**Yes**	0.0	61.5	No	1.9	63.4	No
R14	2298 Bellevue Rd, Atwater, CA 95301	56.3	56.8	59.1	2.3	>60 or +3 dBA	No	-1.7	55.1	No	2.3	59.1	No
R15	2238 Falcon Ct, Atwater, CA 95301	55.4	55.5	57.5	2.0	>60 or +3 dBA	No	-2.0	53.5	No	1.7	57.2	No
R16	2472 Brodalski St, Atwater, CA 95301	58.9	59.4	67.9	8.4	>60 or +3 dBA	**Yes**	4.4	63.8	**Yes**	2.1	61.4	No
R17	2422 Brodalski St, Atwater, CA 95301	64.1	62.1	67.1	5.0	+3 dBA	**Yes**	1.0	63.1	No	-4.3	57.8	No
R18	2920 Virginia St, Atwater, CA 95301	62.2	61.1	65.8	4.7	+3 dBA	**Yes**	0.7	61.8	No	-1.8	59.3	No

NOTE: BOLD INDICATES WHERE PROJECT-RELATED TRAFFIC IS PREDICTED TO EXCEED THE INCREASE CRITERIA OR CAUSE TRAFFIC NOISE LEVELS TO EXCEED THE LOCAL EXTERIOR NOISE STANDARD.
SOURCE: SAXELBY ACOUSTICS, 2023.

Alternative I

Based upon Table NOISE-6, development of Alternative 1 would result in significant traffic noise increases at nine noise sensitive receptor locations. These noise increases could be mitigated using quiet pavement or construction of 6-foot-tall sound walls along the effected sensitive receptors.

Alternative II

Based upon Table NOISE-7, development of Alternative 2 would result in significant traffic noise increases at nine noise sensitive receptor locations. These noise increases could be partially mitigated using quiet pavement. However, not all locations would be fully mitigated through use of quiet pavement alone. Therefore, construction of 6-foot-tall sound walls would be required along some or all the effected sensitive receptors.

Alternative III

Based upon Table NOISE-8, development of Alternative 3 would result in significant traffic noise increases at nine noise sensitive receptor locations. These noise increases could be partially mitigated using quiet pavement. However, not all locations would be fully mitigated through use of quiet pavement alone. Therefore, construction of 6-foot-tall sound walls would be required along some or all the effected sensitive receptors.

Construction Noise

During the construction phases of the proposed Project, noise from construction activities would add to the noise environment in the immediate project vicinity. As indicated in Table NOISE-4, activities involved in construction would generate maximum noise levels ranging from 76 to 90 dBA Lmax at a distance of 50 feet. Construction activities would also be temporary in nature and are anticipated to occur during normal daytime working hours. The City of Atwater Municipal Code exempts construction noise from the noise ordinance if activities do not occur before 7:00 a.m. or after 7:00 p.m. on Monday to Friday or before 9:00 a.m. or after 5:00 p.m. on Saturdays and Sundays.

As shown in Table NOISE-4, construction equipment is predicted to generate noise levels of up to 90 dBA Lmax at a distance of 50 feet. Roadway construction, including sound wall construction activity could occur as close as approximately 25 feet of existing noise-sensitive receptors. At this distance, construction noise would be expected to range between 82 to 96 dBA Lmax. Based upon noise measurements collected at site LT-1, existing maximum daytime noise levels ranged from 63-85 dBA Lmax, a potential increase of 11 dBA. Therefore, project construction would not cause an increase of greater than 12 dBA over existing ambient noise levels.

Although construction activities are temporary in nature and would occur during normal daytime working hours, construction-related noise could result in sleep interference at existing noise-sensitive land uses in the vicinity of the construction if construction activities were to occur outside the normal daytime hours. Therefore, impacts resulting from noise levels temporarily exceeding the threshold of significance due to construction would be considered potentially significant. Mitigation measure 2 would help ensure that construction noise impacts remain ***less than significant***.

Conclusion

Implementation of Mitigation Measure NOISE-1(a)(ALT-1) for Alternative I, NOISE-1(a)(ALT-2) for Alternative II, or NOISE-1(a)(ALT-3) for Alternative III, would reduce traffic-generated noise level increases associated with the proposed Project to a ***less than significant*** level.

Implementation of Mitigation Measure NOISE-2 would help construction noise to remain ***less than significant*** level.

Mitigation Measure(s)

Mitigation Measure NOISE-1(A)(ALT-1)*: For Alternative 1, quiet pavement shall be installed for Bellevue Road along existing sensitive receptors to mitigate the traffic noise increases. In lieu of quiet pavement, minimum 6-foot-tall sound walls should be constructed along the residential uses located north and south of Bellevue Road along the realigned roadway. Figure 6 of the Bellevue Reconstruction/Realignment Project Environmental Noise Assessment shows the location of the sound walls. Sound walls should be of masonry type construction.*

Mitigation Measure NOISE-1(A)(ALT-2)*: For Alternative 2, a minimum 6-foot-tall sound wall shall be constructed along the residential uses located north and south of Bellevue Road along the realigned roadway. Figure 6 of the Bellevue Reconstruction/Realignment Project Environmental Noise Assessment shows the location of the sound walls. Sound walls should be of masonry type construction. Quiet pavement should be installed for Bellevue Road along existing sensitive receptors to mitigate the traffic noise increases.*

Mitigation Measure NOISE-1(A)(ALT-3)*: For Alternative 3, a minimum 6-foot-tall sound wall shall be constructed along the residential uses located north and south of Bellevue Road along the realigned roadway. Figure 6 of the Bellevue Reconstruction/Realignment Project Environmental Noise Assessment shows the location of the sound walls. Sound walls should be of masonry type construction. Quiet pavement should be installed for Bellevue Road along existing sensitive receptors to mitigate the traffic noise increases.*

Mitigation Measure NOISE-2*: The City shall establish the following as conditions of approval for any permit that results in the use of construction equipment:*

- *Construction shall be limited to between 7:00 a.m. to 7:00 p.m. on Monday to Friday and between 9:00 a.m. to 5:00 p.m. on Saturdays and Sundays projects within the City of Atwater.*
- *All construction equipment powered by internal combustion engines shall be properly muffled and maintained.*
- *Quiet construction equipment, particularly air compressors, are to be selected whenever possible.*
- *All stationary noise-generating construction equipment such as generators or air compressors are to be located as far as is practical from existing residences. In addition, the project contractor shall place such stationary construction equipment so that emitted noise is directed away from sensitive receptors nearest the project site.*
- *Unnecessary idling of internal combustion engines is prohibited.*
- *The construction contractor shall, to the maximum extent practical, locate on-site equipment staging areas to maximize the distance between construction-related noise sources and noise-sensitive receptors nearest the project site during all project construction.*

Timing/Implementation: Implemented prior to approval of grading and/or building permits Enforcement/Monitoring: City of Atwater Community Development Services Department.

Response b): Construction vibration impacts include human annoyance and building structural damage. Human annoyance occurs when construction vibration rises significantly above the threshold of perception. Building damage can take the form of cosmetic or structural. The Table

NOISE-5 data indicate that construction vibration levels anticipated for the proposed Project are less than the 0.2 in/sec threshold at distances of 26 feet. Sensitive receptors which could be impacted by construction related vibrations, especially vibratory compactors/rollers, are located further than 26 feet from typical on-site construction activities. At distances greater than 26 feet construction vibrations are not predicted to exceed acceptable levels. Additionally, construction activities would be temporary in nature and would likely occur during normal daytime working hours. However, off-site improvements could occur near sensitive receptors. Because the exact location of construction is unknown currently, this is considered a potentially significant impact.

Implementation of mitigation measures NOISE-3 would reduce groundborne vibration levels to a ***less than significant*** level.

Mitigation Measure(s)

Mitigation Measure NOISE-3*: If use of vibratory compactors is required within 25 feet, or less, of a residential structure, pre-construction crack documentation and construction vibration monitoring shall be conducted to ensure that construction vibrations do not cause damage to any adjacent structures. Alternatively, use of hand compaction equipment could be employed to minimize ground vibrations.*

Response c): The Project site is not located within the vicinity of an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport. The closest airport or airstrip is the Merced-Castle Airport, located approximately 3.25 miles northeast of the Project site. The proposed Project would, therefore, not expose people residing or working in the proposed Project area to excessive noise levels associated with such airport facilities. The Project site is not located within the vicinity of a private airstrip. The proposed Project would, therefore, not expose people residing or working in the proposed Project area to excessive noise levels associated with such private airport facilities. Implementation of the proposed Project would have ***no impact*** relative to this topic.

XIV. POPULATION AND HOUSING

Would The proposed Project:	***Potentially Significant Impact***	***Less Than Significant with Mitigation Incorporation***	***Less Than Significant Impact***	***No Impact***
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?				X
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?				X

Responses to Checklist Questions

Response a): The proposed Project is an infrastructure/roadway project that is surrounded by light industrial and agricultural uses. In the identified alternatives, the proposed Project proposes to realign Bellevue Road to the south of the existing Bellevue alignment or widen the existing Bellevue Road. The proposed Project would not include upsizing of offsite infrastructure to accommodate additional housing growth. Therefore, Implementation of the proposed Project would not induce substantial population growth in an area, either directly or indirectly. Implementation of the proposed Project would have ***no impact*** relative to this topic.

Response b): The Project site does not contain housing. The proposed Project would not displace housing or people. Implementation of the proposed Project would have ***no impact*** relative to this topic.

XV. PUBLIC SERVICES

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Would The proposed Project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
Fire protection?			X	
Police protection?			X	
Schools?			X	
Parks?			X	
Other public facilities?			X	

Responses to Checklist Questions

Response a):

Fire Protection

The Project site is currently under the jurisdiction of the Merced County Fire Department. The Merced County Fire Department serves approximately 286,000 residents and commercial business in four separate cities and all unincorporated areas of Merced County. The Merced County Fire Department serves an approximate 1,979 square mile service area and encompasses suburban areas, commercial districts, business centers, and farmland. The Merced County Fire Department operates out of nineteen (19) facilities that are strategically located through Merced County. The nearest fire station to the Project site is Station 63 located at 6825 Winton Way, Winton approximately 2.0 miles northeast of the Project site. Station 63 services a 63 square mile response area and staffs 1 Captain, 3 Fire Apparatus Engineers, 2 Personnel on shift daily. In 2022, Station 63 had a total of 2,122 of incident responses.

In addition, fire protection services are also in the city are provided by Cal Fire in the City of Atwater, which has a mutual aid agreement with the Merced County Fire Department. The City of Atwater operates two (2) fire stations: Station 41 at 699 Broadway Avenue and Station 42 at 2006 Avenue Two, approximately, 1.5 and 3.0 miles southeast of the Project site, respectively. In 2017, the City updated the Municipal Service Review and cited a response time of less than seven (7) minutes for 90 percent of responses.

The proposed Project is an infrastructure/roadway project that is surrounded by light industrial and agricultural uses. The proposed Project would not add additional people to the City of Atwater or to the unincorporated area of the County of Merced; therefore, the proposed Project would not put additional demands for service on the Merced County Fire Department or Cal Fire. Moreover, the proposed Project could reduce response times, given that it provides connectivity between State Route 99 and the City of Atwater, as well as the Castle Commerce Center located near the east side of the City. Currently, Bellevue Road is a public road, closed to the public (between Vine Avenue and Orchard Park) under CUP #3721 approved for Dole Packaged Foods between Vine Avenue and Orchard Park Avenue. This causes an additional 2.5 miles of travel to navigate to the State Route 99/West Side interchange from the City. The road realignment would provide a more direct route in comparison to existing conditions.

Furthermore, the proposed Project would be reviewed by Cal Fire and is subject to regulations and standards such as the California Uniform Fire Code (UFC), which includes regulations on construction, maintenance, and building use. Therefore, the impact of the proposed Project on the need for additional fire services facilities, under all identified alternatives, is ***less than significant***.

Police Protection

The Merced County Sheriff's Office is responsible for police protection services of the unincorporated areas of Merced County. The Sherriff's Office is located at 700 West 22nd Street in the city of Merced, approximately 8.42 miles southeast of the Project site. The Merced County Sheriff's Department maintains a mutual aid agreement with the City of Atwater Police Department. The Atwater Police Department currently operates from the main police station located at Bellevue Road. The Police Department divides the city into two (2) sectors, north and south. The Police Department reviews all projects to ensure that building and site designs consider utilization of crime prevention features and techniques.

The proposed Project is an infrastructure/roadway project that is surrounded by light industrial and agricultural uses. The proposed Project would not include the construction of new residences, businesses, or other uses that would directly increase demand for existing police protection services. Moreover, the proposed Project could reduce response times, given that it provides connectivity between State Route 99 and the City of Atwater, as well as the Castle Commerce Center located near the east side of the city. Currently, Bellevue Road is a public road, closed to the public (between Vine Avenue and Orchard Park) under CUP #3721 approved for Dole Packaged Foods between Vine Avenue and Orchard Park Avenue. This causes an additional 2.5 miles of travel to navigate to the State Route 99/West Side interchange from the city. The road realignment would provide a more direct route in comparison to existing conditions.

Therefore, the proposed Project would not facilitate substantial planned or unplanned population growth in a manner that would increase demand on existing police protection services. The proposed Project, under all identified alternatives, would not require new or physically altered governmental facilities for police protection services, and impacts would be ***less than significant***.

Schools

The proposed Project would not result in an increase in population or place additional demand on school facilities. Implementation of the proposed Project would have a ***less than significant*** impact relative to this topic.

Parks

The proposed Project would not result in an increase in population or place additional demand on existing park facilities. Therefore, implementation of the proposed Project would result in a ***less than significant*** impact.

Other Public Facilities

The proposed Project would not result in a need for other public facilities that are not addressed above, or in Section XVIII, Utilities and Service Systems. Implementation of the proposed Project would have ***no impact*** relative to this issue.

XVI. RECREATION

	Potentially Significant Impact	***Less Than Significant with Mitigation Incorporation***	***Less Than Significant Impact***	***No Impact***
a) Would The proposed Project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?				X
b) Does The proposed Project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				X

Responses to Checklist Questions

Responses a): The proposed Project is an infrastructure/roadway project that is surrounded by light industrial and agricultural uses. Further, as identified under *Impact XV. Public Services*, the proposed Project would not include the construction of residential uses, and therefore would not generate additional direct demand on park or other recreational services. Implementation of the proposed Project would have ***no impact*** relative to this topic.

Responses b): The proposed Project would not include the construction of recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment. Implementation of the proposed Project would have ***no impact*** relative to this topic.

XVII. TRANSPORTATION

Would The proposed Project:	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Conflict with a program plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?			X	
b) Would The proposed Project conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?			X	
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?			X	
d) Result in inadequate emergency access?			X	

VMT Analysis

Senate Bill (SB) 743 instructed the California Governor's Office of Planning and Research (OPR) to update CEQA Guidelines to remove congestion-based analysis (such as level of service analysis) from CEQA Transportation analysis, and to install a new metric. The intent of SB 743 was to encourage infill development, promote healthier communities through active transportation (e.g., walking and bicycling), and align CEQA transportation analysis to aid California in meeting greenhouse gas reduction targets set by other pieces of legislation (i.e., AB 32). Ultimately, SB 743 has shifted CEQA transportation analysis from measuring the effects of a project on drivers, to measuring the environmental effects of driving generated by a project. Adopted in December 2018, Section 15064.3 of the CEQA Guidelines notes that Vehicle Miles Traveled (VMT) analysis is the most appropriate metric for the analysis of impacts in the transportation section of CEQA analysis.

The Bellevue Road Reconstruction/Realignment – CEQA VMT analysis was prepared by the traffic consultant (Fehr & Peers) and used throughout this section to support the Bellevue Road Reconstruction/Realignment. The study, included as Appendix C, adopted the Three-County Travel Demand Model (TCTDM) Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) Air Quality Conformity Model. Although the Merced County Association of Governments (MCAG) Model was initially considered, it was not selected because of the lack of daily roadway data for validation purposes. In addition, the current MCAG model version does not include the AM and PM peak hour traffic which is the available data to enhance the model in the study area. The efforts to enhance the travel demand model were extended to both future No Build (Bellevue Road remains unconnected) and Build (Bellevue Road connected) scenarios. An analysis of boundary VMT was performed, comparing the No Build and Build scenarios to assess the impact of Bellevue Road Reconstruction/ Realignment on VMT. Boundary VMT was further stratified by speed bin, which is needed to evaluate emissions for CEQA air quality and GHG analyses.

TCTDM Model Base Year Enhancement: Model enhancement, with a specific focus on the study area, was conducted to demonstrate the model's capacity to accurately predict future traffic volume and subsequent VMT. Fehr & Peers has been working on different versions of the TCTDM model making improvements over different projects such as SR 59 in Merced, CA. The most recent effort was on the Caltrans approved base year of the TCTDM for the Los Banos Pioneer

Road Widening PA&ED (includes the improvements on SR 59 corridor), encompassing San Joaquin, Stanislaus, and Merced Counties, was adopted for this study. The model's base year network includes Bellevue Road connected despite its current closure to traffic within the Dole Packaged Foods campus. Therefore, as the initial step, the network was updated by removing the unconnected section of Bellevue Road and rerunning it. In the Bellevue Road Reconstruction/Realignment – CEQA VMT analysis, the term "As-Received" refers to the Los Banos Pioneer Road Widening PA&ED with Bellevue Road disconnected model. The As-Received model was further adjusted to improve statistical validation for the Bellevue Road study area.

To evaluate the travel model's performance in replicating existing conditions, the TCTDM As-Received base year results were compared to the static travel model validation thresholds from the 2017 California Regional Transportation Plan (RTP) Guidelines published by the California Transportation Commission as follows:

- Model/Count Ratio: while there is no specified threshold for this metric, Fehr & Peers uses a threshold of "Within +/-10%" of the sum of all locations
- Correlation Coefficient: greater than 0.88
- Percent Root Mean Square Error (RMSE): less than 40%
- Link Volumes within the Allowed Deviation Limits: at least 75%

The VMT analysis study aims to significantly improve model performance across the four metrics through three rounds of model enhancement. It is outside the scope of work of this analysis to fully validate the model to Caltrans standards. The As-Received base year model is compared with existing traffic demand during the one-hour AM peak and PM peak, and the enhancement statistics are shown in Table TRNS-1.

Table TRNS-1: Base Year Model Enhancement Results

2017 California Regional Transportation Plan Guidelines Model Validation Standards					
Metrics	***Threshold***	***"As-Received"***		***Post-Adjustment***	
		AM Peak Period	***PM Peak Period***	***AM Peak Period***	***PM Peak Period***
Volume-to-Count Ratio (Sum of All Locations)[1]	Within 10%	-51%	-38%	-28%	**-9%**
Percent Links within Caltrans Deviation Allowance[2]	At Least 75%	29%	29%	**79%**	**83%**
Percent Root Mean Square Error (RMSE)[2]	Below 40%	60%	59%	61%	57%
Correlation Coefficient	At Least 0.88	**0.92**	**0.86**	0.73	0.77
Number of Locations		24	24	24	24

NOTES: BOLD INDICATES CRITERIA WAS MET.

[1] ALTHOUGH NO SPECIFIC THRESHOLD IS SPECIFIED, FEHR & PEERS USES A THRESHOLD OF "WITHIN +/-10%" OF THE SUM OF ALL LOCATIONS.

[2] STATIC VALIDATION CRITERIA AND THRESHOLDS, 2017 CALIFORNIA REGIONAL TRANSPORTATION PLAN GUIDELINES, CALIFORNIA TRANSPORTATION COMMISSION.

SOURCE: 2017 CALIFORNIA REGIONAL TRANSPORTATION PLAN GUIDELINES, AND FEHR & PEERS 2024.

The As-Received metrics suggest the model is not replicating traffic conditions in the study area. Therefore, three iterations were conducted to improve model performance within the study area. The enhancement process for each iteration is as follows:

1. Iteration 1: The configuration of the SR 99/Westside Boulevard interchange was modified by removing an additional link within the interchange and eliminating the connection of Central Avenue between the north and south sections of the interchange.
2. Iteration 2: The east leg of Fruitland Avenue and Grove Avenue was added.
3. Iteration 3: Speed limits along Liberty Avenue were adjusted to reflect the existing conditions more accurately on this corridor.

The enhancement process has resulted in substantial improvement in the model's performance in terms of static validation criteria. The peak hour volume to count ratio increased from 0.49 to 0.72 during the AM period and from 0.68 to 0.91 during the PM period. Additionally, the final calibrated model now has over 75% of the links meeting the Caltrans Deviation Allowance target for both AM and PM. The calibrated model exhibits better RMSE and Correlation Coefficient results for both AM and PM. Therefore, the results indicate that the enhanced model is a better fit than the As-Received model.

TCTDM Model Base Year Enhancement: The TCTDM 2045 future year scenario for the Los Banos Pioneer Road Widening PA&ED was also adopted for this study. The adjustments made during the base year enhancement were applied to the 2045 model to maintain consistency. Bellevue Road was upgraded to a four-lane urban major arterial to conform with the City of Atwater General Plan. The future model was run for two scenarios:

1. 2045 No Build: Bellevue Road disconnected to the east and west of the Dole Packaged Foods campus.
2. 2045 Build: Bellevue Road connected to the east and west of the Dole Packaged Foods campus.

The future traffic difference and traffic patterns between the two scenarios were reviewed and the findings were summarized for the VMT calculations outlined in the responses to CEQA checklist questions below.

Responses to Checklist Questions

Response a), b): Less than Significant. Within the Project area, Bellevue Road is designated as a Major Collector on the California Roadway System Map and categorized as a Four-Lane Urban Major Arterial in the City of Atwater General Plan. Because Bellevue Road is currently closed to traffic within the developed section of the Dole Packaged Foods campus, drivers must take lengthy detours on local roads, resulting in additional VMT. Drivers traveling from/to the north side of the City of Bellevue to the SR 99/Westside Boulevard are the most affected by the road closure. The proposed Project aims to realign and reconstruct a segment of Bellevue Road between Grove Avenue and Parade Street, located adjacent to the City of Atwater city limits. According to the traffic consultant, this would enhance regional mobility for both goods and people along a significant roadway, resulting is in a reduction in VMT.

To understand the VMT impact of connecting Bellevue Road, the following metrics were developed:

- **Project's Effect on Daily VMT (Boundary VMT):** The sum of VMT associated with all the links within certain boundaries (links volumes multiplied by link distance in miles).
- **Project's Effect on VMT (Boundary VMT) by Speed Bin and by Time Period:** An evaluation of the change in total vehicle travel within certain boundaries and per 5 mph interval speed bins, compared between Build and No Build scenarios. Boundary VMT by speed bin is needed to evaluate emissions for CEQA air quality and CEQA greenhouse gas (GHG) analyses.

Three boundaries were defined to summarize the VMT analysis. The first two VMT boundaries of City of Atwater and the Atwater Sphere of Influence, are based on the political jurisdictions, and may not fully capture the effects on VMT, particularly when considering how traffic flows across different areas. To address this limitation and ensure a more comprehensive assessment, we have introduced a third boundary, which we refer to as the "Expanded Impact Boundary." This boundary extends beyond the city limits of Atwater to include neighboring communities such as Livingston and Winton. By doing so, the VMT analysis aims to encompass the broader area influenced by changes in traffic patterns, thereby providing a more accurate representation of the proposed Project's impact on VMT.

The total VMT results for each scenario are presented in Table TRNS-2. AS shown, the proposed realignment/ reconstruction of Bellevue Road is anticipated to reduce the total VMT across these boundaries.

Table TRNS-2: Total Boundary VMT

Metrics	*No Build*	*Build*	*Net Change*
Within City Limit	508,468	499,769	-6,403
Within Sphere of Influence	1,277,738	1,271,335	-8,699
Within Area of Influence Boundary	2,987,068	2,979,712	-7,356

NOTES: TCTDM, FEHR & PEERS, FEBRUARY 2024.

As mentioned earlier, boundary VMT evaluates the change in total vehicle travel. Boundary VMT are further stratified by speed bin for air quality and greenhouse gas analyses. VMT by speed bin (5 mile per hour intervals) was calculated for both the Build and No Build scenarios across all time periods. The results of Daily VMT by speed bin within each boundary area are presented in Table TRNS-3. A slightly higher distribution of VMT within higher speed ranges was obtained for the Build scenario. This observation may suggest potential mobility improvement and congestion relief in the Build scenario. The findings across different time periods were also consistent with the Daily VMT results.

Table TRNS-3: Daily VMT by Speed Bin

Speed Bin	Within City Limit				Within Sphere of Influence				Within Expanded Impact Boundary			
	No Build		Build		No Build		Build		No Build		Build	
	VMT	%	VMT	%	VMT	%	VMT	%	VMT	%	VMT	%
0 - 4.99	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
5 - 9.99	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
10 - 14.99	13,114	3%	13,210	3%	21,645	2%	21,767	2%	38,337	1%	38,881	1%
15 - 19.99	11,383	2%	11,183	2%	19,778	2%	19,580	2%	64,766	2%	64,456	2%
20 - 24.99	16,213	3%	15,619	3%	25,889	2%	32,665	3%	59,769	2%	65,854	2%
25 - 29.99	18,414	4%	15,331	3%	28,435	2%	27,964	2%	91,707	3%	114,206	4%
30 - 34.99	28,807	6%	28,884	6%	67,510	5%	57,188	4%	221,907	7%	164,933	6%
35 - 39.99	87,771	17%	63,664	13%	135,238	11%	106,117	8%	341,230	11%	335,367	11%
40 - 44.99	70,692	14%	91,276	18%	217,749	17%	234,531	18%	556,221	19%	636,081	21%
45 - 49.99	141,890	28%	141,111	28%	459,038	36%	463,025	36%	923,016	31%	874,101	29%
50 - 54.99	79,021	16%	78,731	16%	203,861	16%	210,738	17%	491,861	16%	488,370	16%
55 - 59.99	10,121	2%	10,078	2%	15,131	1%	15,059	1%	15,235	1%	15,150	1%
60 - 64.99	31,042	6%	30,683	6%	83,465	7%	82,702	7%	183,019	6%	182,314	6%
65+	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
Total Boundary VMT	508,468	100%	499,770	100%	1,277,739	100%	1,271,336	100%	2,987,068	100%	2,979,712	100%

NOTES: TCTDM, FEHR & PEERS, FEBRUARY 2024.

Separately, construction traffic would be temporary and minor. The proposed Project is a roadway realignment project that would not include extensive construction activities beyond what would normally be required for a project of this type. In comparison to other types of development projects (such as residential, commercial, or industrial projects), roadway projects typically require fewer construction vehicles over a shorter construction period. Project construction activities would be required to comply with all relevant state and local regulations governing construction activities, which would ensure that construction activities would not generate a significant impact to this topic.

In conclusion, during both project construction and operation. the proposed Project under all identified alternatives would not conflict with a program plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities, or conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b).

Overall, there is a ***less than significant*** impact relative to this topic.

Responses c), d): **Less than Significant.** The proposed Project is a roadway infrastructure project, which would increase roadway linkages between State Route 99 and the City of Atwater by Bellevue Road. No site circulation or access issues have been identified that would cause a traffic safety problem/hazard or any unusual traffic congestion or delay within the proposed Project. Bellevue Road is currently closed to traffic within the developed portion of the Dole Packaged Foods campus, requiring the public to take extensive detours to access the City and the Castle Commerce Center. These detours contribute to additional vehicle miles traveled and travel time, reducing the accessibility and mobility of goods and persons to the City of Atwater. The proposed Project would add, enhance, and improve circulation network choices for local motorists to access and leave the Castle Commerce Center and Atwater more efficiently as

Bellevue would provide a more direct route. In addition, there would not be a significant concern relating to emergency access throughout the proposed Project, as the proposed Project would be developed in accordance with all relevant state and local regulations governing emergency vehicle access, which would ensure that the proposed Project would not result in inadequate emergency access. There is a ***less than significant*** impact relative to this topic.

XVIII. TRIBAL CULTURAL RESOURCES

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Would The proposed Project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)?		X		
ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resources to a California Native American tribe.		X		

Responses to Checklist Questions

Responses a), b): Although no Tribal Cultural Resources (TCRs) have been documented on the proposed Project, the proposed Project is in a region where significant cultural resources have been recorded and there remains a potential that undocumented archaeological resources that may meet the TCR definition could be unearthed or otherwise discovered during ground-disturbing and construction activities. Examples of significant archaeological discoveries that may meet the TCR definition would include villages and cemeteries. Due to the possible presence of undocumented TCRs within The Project site, construction-related impacts on tribal cultural resources would be potentially significant. With implementation of the following mitigation measure, the proposed Project would have a ***less than significant*** impact related to tribal cultural resources.

Mitigation Measures

Implement Mitigation Measure CUL-1.

XIX. UTILITIES AND SERVICE SYSTEMS

Would The proposed Project:	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Require or result in the relocation or construction of new or expanded water, wastewater or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?			X	
b) Have sufficient water supplies available to serve the proposed Project and reasonably foreseeable future development during normal, dry and multiple dry years?			X	
c) Result in a determination by the wastewater treatment provider which serves or may serve the proposed Project that it has adequate capacity to serve the proposed Projects projected demand in addition to the providers existing commitments?			X	
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?			X	
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?			X	

Responses to Checklist Questions

Responses a)-e): The proposed Project is a roadway project that would deliver roughly 1.6 miles of a four-lane urban major arterial roadway with Class IV bike lanes. Two alternative alignments entail realigning Bellevue Road south of the Dole Packaged Foods campus, between just west of Grove Avenue and the Atwater Canal, and reconstruction/restriping Bellevue Road between the Atwater Canal and Parade Street. One alternative alignment entails improving the existing Bellevue Road through the Dole Packaged Foods campus. This section of Bellevue Road is currently closed to traffic within the developed portion of the Dole Packaged Foods campus, requiring the public to take extensive detours to access the City and the Castle Commerce Center.

The precise engineering of the roadway improvements is not completed at this early stage. It is anticipated, however, that the improvement plans would include some utility infrastructure within the roadway right-of-way. All infrastructure would be installed within the same footprint (Project limits) of the roadway alignment for the alternative selected. Additionally, all utilities would be designed and installed to the City's engineering standards.

The proposed Project would not require the use of water or wastewater, or natural gas as would be expected in human inhabited developments. It is anticipated that electric power and telecommunications facilities would be installed within the limits of the Project site. Any signals would require electric power, but it is not anticipated that natural gas would be required for the proposed Project.

There is the potential for relocation of existing powerlines within the limits of the Project site. Under Alternative II, the existing power lines would likely require relocation. Under the other alternatives, there would be little to no utility relocation necessary. The relocation of utilities may result in temporary service disruptions for the Dole food processing facility while construction of the Widening/ realigning Bellevue Road is underway. However, the effects of construction are temporary and are not substantial. The operational phase of the proposed Project would restore utility services to the Dole food processing facility to existing conditions.

Implementation of the proposed Project would have a ***less than significant*** impact relative to this topic.

Responses d), e): The proposed Project would not generate solid waste. Implementation of the proposed Project would have a ***less than significant*** impact relative to this topic.

XX. WILDFIRE

Would The proposed Project:	***Potentially Significant Impact***	***Less Than Significant with Mitigation Incorporation***	***Less Than Significant Impact***	***No Impact***
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the proposed Project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?			X	
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?			X	
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?			X	
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?			X	

Existing Setting

There are no State Responsibility Areas (SRAs) within the Project site. The City of Atwater is not categorized as a "Very High" Fire Hazard Severity Zone (FHSZ) by CalFire. Although this CEQA topic only applies to areas within an SRA or Very High FHSZ, out of an abundance of caution, these checklist questions are analyzed below.

Responses to Checklist Questions

Response a): The proposed Project would improve circulation, which would allow for greater emergency access relative to existing conditions. The proposed Project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. Implementation of the proposed Project would have a ***less than significant*** impact relative to this topic.

Response b): The risk of wildfire is related to a variety of parameters, including fuel loading (vegetation), fire weather (winds, temperatures, humidity levels and fuel moisture contents) and topography (degree of slope). Steep slopes contribute to fire hazard by intensifying the effects of wind and making fire suppression difficult. Fuels such as grass are highly flammable because they have a high surface area to mass ratio and require less heat to reach the ignition point. The County has areas with an abundance of flashy fuels (i.e. grassland) in the foothill areas of the eastern and western portion of the County, which are also designated with Moderate to High wildfire risk. The Project site is in an area that is predominately agricultural and urban, which is not considered at a significant risk of wildfire. Implementation of the proposed Project would have a ***less than significant*** impact relative to this topic.

Response c): The proposed Project includes development of infrastructure (a roadway) that would have essential no change in wildfire risk relative to existing conditions. The proposed

Project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. Implementation of the proposed Project would have a ***less than significant*** impact relative to this topic.

Response d): The proposed Project would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, because of runoff, post-fire slope instability, or drainage changes. The proposed Project does not propose any housing or structures. Additionally, the proposed Project would not result in land use changes that could indirectly cause growth. Instead, the proposed Project would improve the roadway system, which is anticipated to improve circulation to the benefit of the residents. Implementation of the proposed Project would have a ***less than significant*** impact relative to this topic.

XXI. MANDATORY FINDINGS OF SIGNIFICANCE

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Does The proposed Project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?			X	
b) Does The proposed Project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?			X	
c) Does The proposed Project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?			X	

Responses to Checklist Questions

Response a): This Initial Study includes an analysis of the proposed Project impacts associated with aesthetics, agricultural and forest resources, air quality, biological resources, cultural resources, geology and soils, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, public services, recreation, transportation and traffic, and utilities and service systems. The analysis covers a broad spectrum of topics relative to the potential for the proposed Project to have environmental impacts. This includes the potential for the proposed Project to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number, or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory. It was found that the proposed Project would have either no impact, a less than significant impact, or a less than significant impact with the implementation of mitigation measures. For the reasons presented throughout this Initial Study, the proposed Project would not substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory. With the implementation of mitigation measures presented in this Initial Study, the proposed Project would have a ***less than significant*** impact relative to this topic.

Response b): This Initial Study includes an analysis of the proposed Project impacts associated with aesthetics, agricultural and forest resources, air quality, biological resources, cultural resources, geology and soils, greenhouse gas emissions, hazards and hazardous materials,

hydrology and water quality, land use and planning, mineral resources, noise, population and housing, public services, recreation, transportation/traffic, and utilities and service systems. The analysis covers a broad spectrum of topics relative to the potential for the proposed Project to have environmental impacts. It was found that the proposed Project would have either no impact, a less than significant impact, or a less than significant impact with the implementation of mitigation measures. These mitigation measures would also function to reduce the proposed Project's contribution to cumulative impacts.

There are no significant cumulative or cumulatively considerable effects that are identified associated with the proposed Project after the implementation of all mitigation measures presented in this Initial Study. With the implementation of all mitigation measures presented in this Initial Study, the proposed Project would have a ***less than significant*** impact relative to this topic.

Responses c): The construction phase could affect surrounding neighbors through increased air emissions, noise, and traffic; however, the construction effects are temporary and are not substantial. The operational phase could also affect surrounding neighbors through increased air emissions, noise, and traffic; however, mitigation measures have been incorporated into the proposed Project that would reduce the impacts to a less than significant level. The proposed Project would not cause substantial adverse effects on human beings. Implementation of the proposed Project would have a ***less than significant*** impact relative to this topic.

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APPENDIX A: CULTURAL RESOURCE SURVEY

CULTURAL RESOURCE SURVEY FOR THE BELLEVUE ROAD RECONSTUCTION/ REALIGNMENT PROJECT CITY OF ATWATER, CALIFORNIA

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February 16, 2024
(Job #23-088)

INTRODUCTION

Location

The proposed Project would begin on existing Bellevue Road between Olive Avenue and Grove Avenue to the west and end at the intersection of Parade Street and Bellevue Road to the east (See Figure 1 Regional Location and Figure 2 Project Vicinity). The project would restore Bellevue Road as a major entry to the northern portion of the City of Atwater (City), provide a direct route between SR-99, the City of Atwater, and the Castle Commerce Center to the east, and would reduce vehicle miles traveled (VMT). The Project site is generally flat and traverses mostly orchards and open fields.

Purpose And Need

Purpose: The purpose of the project is to:

- Improve accessibility and mobility of goods and persons in Atwater;
- Provide a direct route from the SR 99/Westside Boulevard interchange to the City and to the Castle Commerce Center;
- Reduce VMT;
- Reduce travel time;
- Provide bicycle and pedestrian facilities;
- Accommodate local development and provide consistency with existing and planned local and regional development.

Need: The Project will deliver roughly 1.6 miles of a four-lane urban major arterial roadway with Class IV bike lanes. The project alignment spans across City of Atwater and Merced County right of ways. The project entails realigning Bellevue Road south of the Dole Packaged Foods campus, between just west of Grove Avenue and the Atwater Canal, and restriping Bellevue Road between the Atwater Canal and Parade Street. Bellevue Road is currently closed to traffic within the developed portion of the Dole Packaged Foods campus, requiring the public to take extensive detours to access the City and the Castle Commerce Center. These detours contribute to additional vehicle miles traveled and travel time, reducing the accessibility and mobility of goods and persons to the heart of Atwater.

The proposed project will add, enhance, and improve circulation network choices for local motorists to access and leave the Castle Commerce Center and Atwater more efficiently. VMT will also be decreased as Bellevue will provide a more direct route.

Project Description

The City, of Atwater, in partnership with the County of Merced (County), initiated a Project Study Report-Project Development Support (PSR-PDS) to evaluate improvements to a local road

alignment that will help relieve congestion and improve traffic flow through the City along Bellevue Road. The City now proposes to move forward with improvement plan design and construction of an approximately 1.6-mile-long, 4-lane arterial road in Merced County. The proposed road will begin between Olive Avenue and Grove Avenue, east of State Route 99. Bellevue Road will be realigned south of the existing Bellevue Road, then conform near the intersection of Parade Street and Bellevue Road. New intersection connections will be required at Vine Avenue and Orchard Park Avenue. The project will also include Class IV bike lanes. All improvements will be designed to the City of Atwater Standards.

The project will provide connectivity between State Route 99 and the heart of Atwater, as well as the Castle Commerce Center located near the east side of the City. Currently, Bellevue Road is a public road, closed to the public (between Vine Avenue and Gipson Street) under a Conditional Use Permit (CUP) approved for Dole Packaged Foods between Vine Avenue and Orchard Park Avenue. This causes an additional 2.5 miles of travel to navigate to the State Route 99/West Side interchange from the City. The road realignment will provide a direct route and reduce VMT.

Alternatives

Multiple design alternatives are being considered for the alignment of Bellevue Road. Construction cost estimates are not fully developed at this early planning/engineering stage. Additionally, precise improvements, such as required retaining wall, utility design, etc., are details that will be developed after the alternative alignment is selected and more detailed engineering and design is needed to move toward the construction phase. Each alternative alignment has an established footprint that would encapsulate all necessary improvements for that alternative. It is assumed in this analysis that the entire footprint of the alternative selected would be disturbed during construction.

The first alternative proposes to realign Bellevue Road to the south of the existing Bellevue alignment. The second alternative proposes to widen the existing Bellevue Road. A third alternative emerged between these two, just south of the existing Bellevue Road.

The major portion of the project is outside of the City of Atwater; but within its Sphere of Influence. The City and County have acknowledged that the project will be designed using the City of Atwater Design Standards. The Atwater City General Plan states Bellevue Road has a speed of 45 mph; however, the western portion of the segment will remain rural for an extended time period so it can be traversed at a higher speed. The design speed varies along the project and changes from 55 mph on the west to 45 mph about 1,000 feet west of the Orchard Park alignment.

Alternative I entails realigning Bellevue Road south of the Dole Packaged Foods campus between just west of Grove Avenue and the Atwater Canal and restriping between Gipson Street and Parade Street. Bellevue Road would be widened to four lanes beginning between Olive Avenue and Grove Avenue to the West and conform to the four-lane with a two-way left turn lane condition to the East.

Alternative II entails widening along the existing Bellevue Road alignment between Grove Avenue and the Atwater Canal and restriping between Gipson Street and Parade Street. Bellevue

Road would be widened to four lanes beginning between Olive Avenue and Grove Avenue to the West and conform to the four-lane with a two-way left turn lane condition to the East.

Alternative III entails realigning Bellevue Road just south of the Dole Packaged Foods campus and the existing roadway alignment between just west of Grove Avenue and the Atwater Canal and restriping between Gipson Street and Parade Street. Bellevue Road would be widened to four lanes beginning between Olive Avenue and Grove Avenue to the West and conform to the four-lane with a two-way left turn lane condition to the East.

The following Bellevue Road alternatives are discussed below.

Alternative I

Alternative I is a realignment of approximately 1.6 miles of 4-lane arterial roadway with a Class IV bikeway beginning at Olive Avenue on the east and ending at the Atwater Canal (about 600 feet west of Parade Street). Bellevue will be widened from a two-lane to a four-lane roadway and includes a raised median, sidewalks, and a Class IV bikeway. This alternative realigns Bellevue Road about 750 feet south of the existing Bellevue Road. This alignment contains horizontal curves with no superelevation designed for 55 mph on the west and 45 mph on the eastern half. The proposed alignment cuts through the Dole Packaged Foods agricultural land but will avoid impacts to their basin locations, parking lots and buildings.

The realigned Bellevue Road will require connections to existing roads to be reestablished. Improvements to the Grove Avenue, Vine Avenue, Orchard Park Avenue, the existing Bellevue Road, and Gipson Street will be implemented to maintain access for all travelers. Additionally, a cul-de-sac is proposed along Vine Avenue to ensure there is no public access to the portion of the existing Bellevue Road that is closed to the public.

The project aims to improve accessibility and circulation to and through the City by providing a Class IV bikeway and sidewalks which are consistent with existing and planned facilities by local and regional development efforts.

Alternative I will be designed consistent with the latest Highway Design Manual as well as according to local design standards for the City. Nonstandard features are not anticipated.

Alternative II

Alternative II is a roadway widening of approximately 1.2 miles of 4-lane arterial roadway with a Class IV bikeway beginning at Olive Avenue on the east and ending at the Atwater Canal (about 600 feet west of Parade Street). Bellevue will be widened from a two-lane to a four-lane roadway and includes a raised median, sidewalks and a Class IV bikeway. This alternative contains no curves and is aligned along the existing Bellevue Road.

The proposed alignment will have impacts to the Dole International Plant. The widening will impact the employee plant parking lots east of Vine Avenue on the north and south side of the road. This will require a parking reconfiguration for Dole that will affect employee access to the plant. It will also affect truck accessibility of the plant as it cuts through the Dole truck staging area. The Dole International Pond on the north side of Bellevue will be affected with the roadway widening. This will require regrading and relocating the pond north.

According to field assessment and a LiDAR surface obtained from USGS, there is an elevation difference between the existing parking lot on the south side of Bellevue Road and the existing Bellevue Road centerline. Assuming the existing roadway grade for the proposed profile will be maintained, a retaining wall has been proposed between Vine Avenue and Orchard Park Avenue.

The project aims to improve accessibility and circulation to and through the City by providing a Class IV bikeway and sidewalks which are consistent with existing and planned facilities by local and regional development efforts.

Alternative II will be designed consistent with the latest Highway Design Manual as well as according to local design standards for the City. Nonstandard features are not anticipated.

Alternative III

Alternative III is a realignment of approximately 1.2 miles of 4-lane arterial roadway with a Class IV bikeway beginning at Olive Avenue on the east and ending at the Atwater Canal (about 600 feet west of Parade Street). Bellevue will be widened from a two-lane to a four-lane roadway and includes a raised median, sidewalks, and a Class IV bikeway. This alternative realigns Bellevue Road just south of the existing Bellevue Road. This alignment contains horizontal curves with no superelevation designed for 55 mph on the west and 45 mph on the east. In comparison to Alternative I, the proposed alignment reduces impacts to Dole Packaged Foods agricultural land but introduces impacts to their basin locations, parking lots and buildings. Approximately 1,500 lineal feet of retaining wall is anticipated to be required along the proposed south right-of-way edge adjacent to existing Dole Packaged Foods facilities.

The realigned Bellevue Road will require connections to existing roads to be reestablished. Improvements to the Grove Avenue, Vine Avenue, Orchard Park Avenue, the existing Bellevue Road, and Gipson Street will be implemented to maintain access for all travelers. Cul-de-sacs and other access control measures will likely be required to ensure there is no public access to the portion of the existing Bellevue Road that is closed to the public.

The project aims to improve accessibility and circulation to and through the City by providing a Class IV bikeway and sidewalks which are consistent with existing and planned facilities by local and regional development efforts.

Alternative III will be designed consistent with the latest Highway Design Manual as well as according to local design standards for the City. Nonstandard features are not anticipated.

No Build Alternative

The current intersection operations of Bellevue Road are projected to operate at acceptable levels of service under 2050 No-Project traffic conditions; however, proposing no alternatives is a detriment to travel delay for users trying to access SR 99 and the City. In addition to delay, the No Build Alternative contributes to higher VMT caused by users not being able to take a direct route.

Right-of-Way

Widening/ realigning Bellevue Road will require additional right-of-way, allowing for two additional lanes as well as the construction of a 16-foot-wide raised median, 6-foot-wide buffered Class IV Bikeway, and two separated 8-foot-wide sidewalks, and two 10-foot wide Public Utility

Easements (PUEs). This widening will result in a total right-of-way increase from about 48 feet to 130 feet.

The Alternative II alignment and widening will impact two parking lots, ponds, a propane tank, fencing and more. The Alternative III alignment and widening will impact a parking lot, a pond, a propane tank, a generator, an office building, fencing and more. The Alternative I is designed to avoid much of the impacts under Alternative II and III with a bypass to the south of the Dole facility.

While damages were accounted for, this study did not account for any impacts to the Regional Water Quality Control Permit Requirements for the facility. At this stage, there is not sufficient information on these impacts and further coordination and meetings with Dole International are required.

The opening of Bellevue Road, especially along the existing alignment (Alternative II), and along the Alternative III alignment, will increase the amount of traffic traveling by the Dole International Plant.

There is a Conditional Use Permit (CUP) between Merced County and Dole International. This document was officially recorded on January 14, 1994. The document permits Dole to use Bellevue Road between Vine Avenue and Orchard Park Avenue to expand their agricultural products processing facility and add 192,000 square feet of structures and additional parking and landscaping on their 157-acre site. The CUP states that Dole shall dedicate to Merced County a swath of land 40’ wide along the Bellevue Road realignment between Vine Avenue and the westerly intersection with existing Bellevue Road, and 20’ wide from Vine Avenue to Orchard Park Avenue. The CUP also requires the dedication of 60’ wide rights-of-ways for the extensions of Vine Avenue and Orchard Park Avenue. Currently, the right-of- way cost does not exclude this dedication of land. Further coordination will be needed to ensure that the team and Dole are in agreement with their understanding of this document and how it will be enforced.

At this time, no temporary construction easements have been estimated. It has been assumed that all work can be done from the public/ permanent right of way.

Utilities

According to utility mapping received, overhead electrical lines are situated along Bellevue Road, Grove Avenue, Vine Avenue, and Orchard Park Avenue. PG&E overhead transmission lines are located on the south side of Bellevue Road along the entire project area. While Alternative I would avoid most of the transmission pole relocations because of the southernly realignment, Alternative II and III will require relocation of these poles which is within the Dole International right-of-way. The utility companies with potential conflicts within the public right-of-way include:

- AT&T / Pacific Bell
- PG&E
- Comcast
- Merced Irrigation District (Electric and Irrigation)

The drainage basins proposed for Alternative I, Alternative II, and Alternative III have been schematically placed and sized.

There are currently no railways located within the project limits.

General Plan and Zoning Designations

The County of Merced's General Plan has identified the area as being inside the City's Planning Area (County of Merced, 2021). According to the City of Atwater General Plan, designated land uses within the project area include Low Density Residential, High Density Residential, Path/Park, Commercial, and Business Park. The project would be designed to increase connectivity through Atwater and is not anticipated to divide the community.

Requested Entitlements and Other Approvals

The City of Atwater is the Lead Agency for the proposed project, pursuant to the State Guidelines for Implementation of CEQA, Section 15050. This document will be used by the City of Atwater to take the following actions:

- Adoption of the Mitigated Negative Declaration (MND);
- Adoption of the Mitigation Monitoring and Reporting Program;
- Approval of the Bellevue Road Reconstruction/Realignment Project.

The following agencies may be required to issue permits or approve certain aspects of the proposed project:

- Regional Water Quality Control Board (RWQCB) - Storm Water Pollution Prevention Plan (SWPPP) approval prior to construction activities pursuant to the Clean Water Act.
- California Department of Transportation (Caltrans) – Approval of encroachment permits at SR99.

It is noted that the Project was originally anticipated to require federal funding, which would create a federal nexus and requirement for NEPA approval. Under the federal funding scenario, it was anticipated that the NEPA compliance would involve the preparation of a Routine Environmental Assessment to support a Finding of No Significant Impact (EA/FONSI). This would be led by Caltrans as the Federal Lead Agency for NEPA.

Currently, the City of Atwater and County of Merced have received funding for the PSR-PDS through Merced County's Measure V Transportation Sales Tax Regional Projects Funds. The City and County are anticipating that the future phases for this project will also be funded by Measure V as well. At this time federal-aid and state funding has not been secured for future phases, and there is no nexus for a NEPA document. The City and County will look for opportunities for federal funding, and if they materialize, then the City will engage Caltrans to ensure that the appropriate NEPA

The project area is mapped in Section 3, Township 7 South, Range 11 East, and Sections 34, 35, and 36, Township 7 South, Range 12 East on the Arena and Atwater USGS United States Geological Survey 7.5-minute topographic quadrangle (Figure 3).

Melinda A. Peak, senior historian/archeologist with Peak & Associates, Inc. served as principal investigator for the study, with archeologist Michael Lawson completing the field survey (resumes, Appendix 1).

REGULATORY CONTEXT

State historic preservation regulations affecting this project include the statutes and guidelines contained in the California Environmental Quality Act (CEQA; Public Resources Code sections 21083.2 and 21084.1 and sections 15064.5 and 15126.4 (b) of the CEQA Guidelines). CEQA Section 15064.5 requires that lead agencies determine whether projects may have a significant effect on archaeological and historical resources. Public Resources Code Section 21098.1 further cites: A project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment.

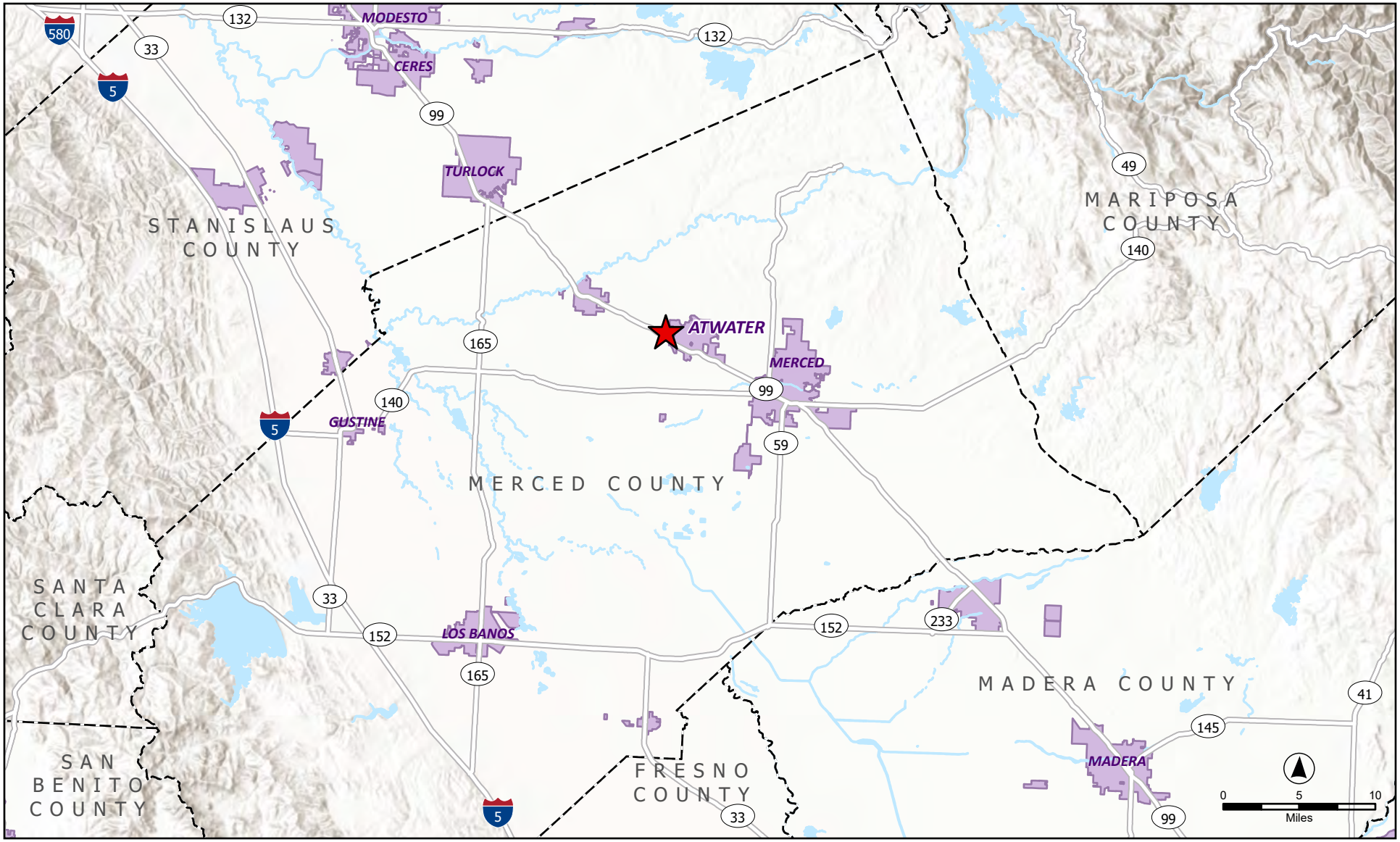
An "historical resource" includes, but is not limited to, any object, building, structure, site, area, place, record or manuscript that is historically or archaeologically significant (Public Resources Code section 5020.1).

Advice on procedures to identify such resources, evaluate their importance, and estimate potential effects is given in several agency publications such as the series produced by the Governor's Office of Planning and Research (OPR), *CEQA and Archaeological Resources,* 1994. The technical advice series produced by OPR strongly recommends that Native American concerns and the concerns of other interested persons and corporate entities, including, but not limited to, museums, historical commissions, associations, and societies be solicited as part of the process of cultural resources inventory. In addition, California law protects Native American burials, skeletal remains, and associated grave goods regardless of the antiquity. It also provides for the sensitive treatment and disposition of those remains (California Health and Safety Code Section 7050.5, California Public Resources Codes Sections 5097.94 et al).

The California Register of Historical Resources (Public Resources Code Section 5020 et seq.)

The State Historic Preservation Office (SHPO) maintains the California Register of Historical Resources (CRHR). Properties listed, or formally designated as eligible for listing, in the National Register of Historic Places are automatically listed on the CRHR, as well as State Landmarks and Points of Interest. The CRHR also includes properties designated under local ordinances or identified through local historical resource surveys.

For the purposes of CEQA, an historical resource is a resource listed in, or determined eligible for listing in the California Register of Historical Resources. When a project will impact a site, it



Legend

- Project Location
- Incorporated Area
- County Area

CITY OF ATWATER - BELLEVUE ROAD RECONSTRUCTION/REALIGNMENT PROJECT

Figure 1 Regional Location

Sources: California State Geoportal; CalTrans. Map date: January 26, 2024.

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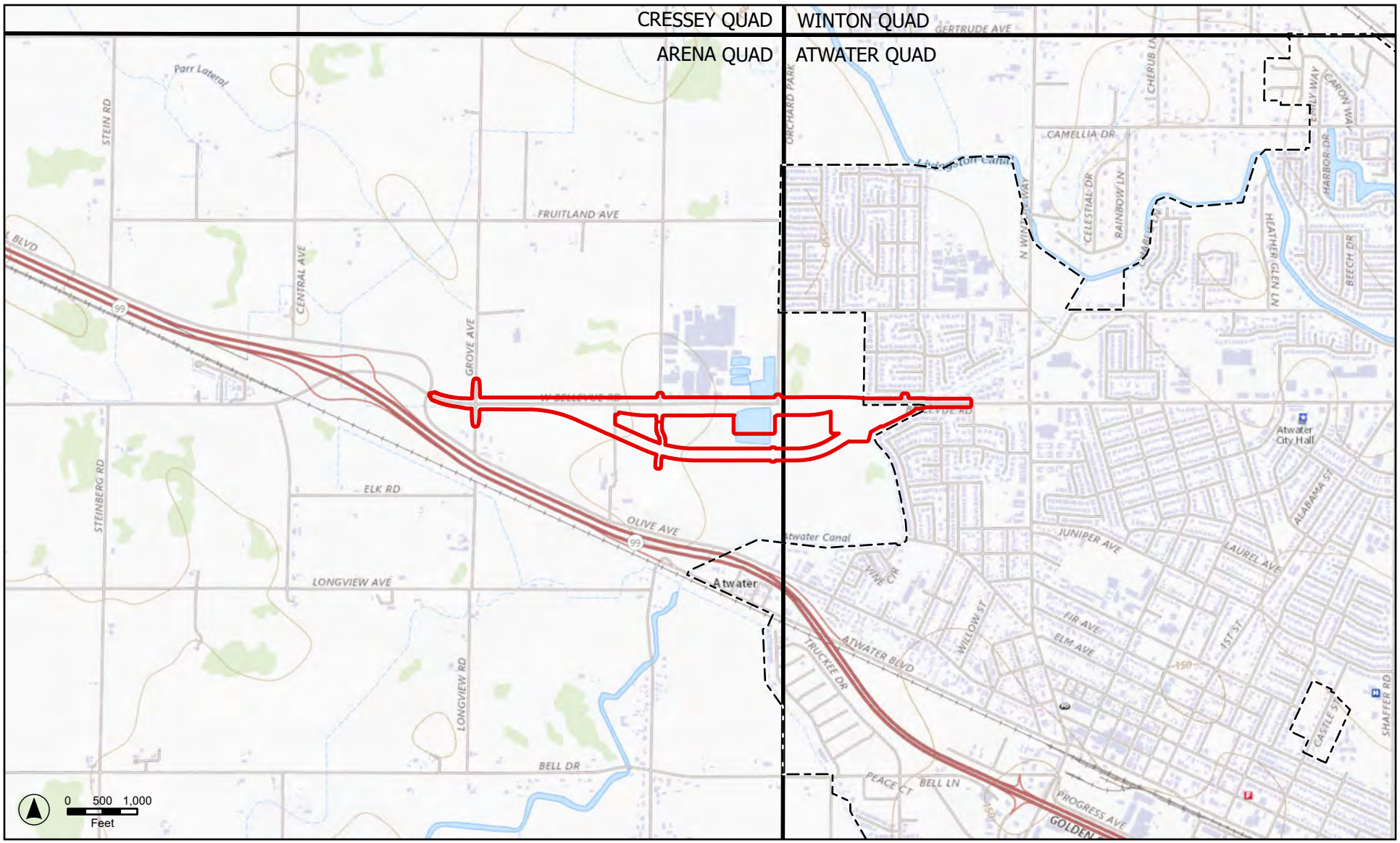

Legend

- Project Boundary
- Atwater City Boundary
- USGS 7.5' Quadrangle

CITY OF ATWATER - BELLEVUE ROAD RECONSTRUCTION/REALIGNMENT PROJECT

Figure 2 USGS Topographic Map

Sources: USGS The National Map. Map date: January 25, 2024.

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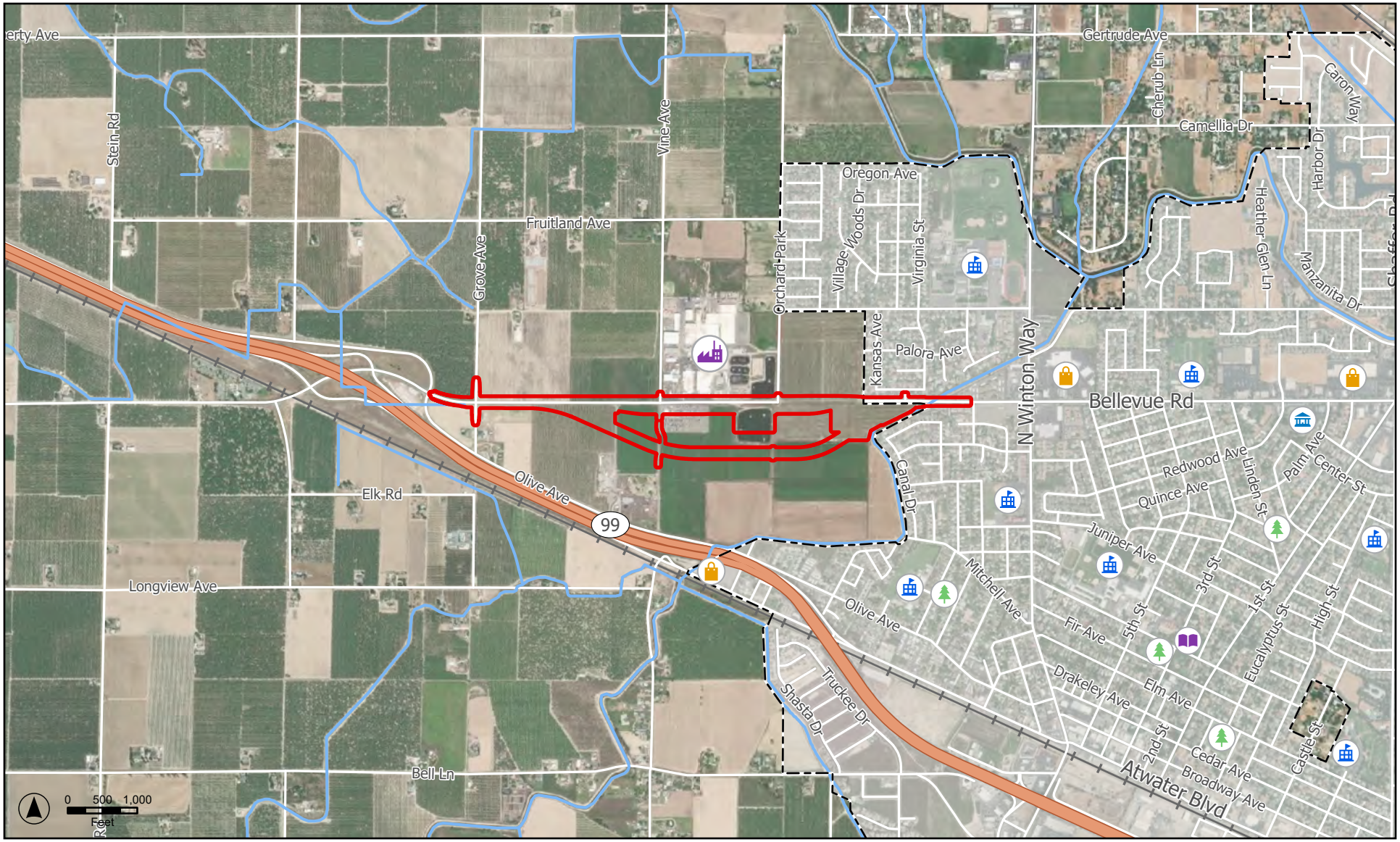

Legend

- Project Boundary
- City of Atwater
- Union Pacific Railroad
- Canal or Ditch
- City Hall/Police Department
- Dole Packaged Foods LLC
- Atwater Branch Library
- Park
- School
- Shopping Center

CITY OF ATWATER - BELLEVUE ROAD RECONSTRUCTION/REALIGNMENT PROJECT

Figure 3 Vicinity Map

Sources: USGS National Hydrography Dataset; USGS Transportation Dataset;\ Google Maps; Maxar Imagery 4/15/2020. Map date: January 26, 2024.

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needs to be determined whether the site is an historical resource. The criteria are set forth in Section 15064.5(a) (3) of the CEQA Guidelines, and are defined as any resource that does any of the following:

A. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;

B. Is associated with the lives of persons important in our past;

C. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or

D. Has yielded, or may be likely to yield, information important in prehistory or history.

In addition, the CEQA Guidelines, Section 15064.5(a) (4) states:

The fact that a resource is not listed in, or determined to be eligible for listing in the California Register of Historical Resources, not included in a local register of historical resources (pursuant to section 5020.1(k) of the Public Resources Code), or identified in an historical resources survey (meeting the criteria in section 5024.1(g) of the Public Resources Code) does not preclude a lead agency from determining that the resource may be an historical resource as defined in Public Resources Code section 5020.1(j) or 5024.1.

California Health and Safety Code Sections 7050.5, 7051, And 7054

These sections collectively address the illegality of interference with human burial remains, as well as the disposition of Native American burials in archaeological sites. The law protects such remains from disturbance, vandalism, or inadvertent destruction, and establishes procedures to be implemented if Native American skeletal remains are discovered during construction of a project, including the treatment of remains prior to, during, and after evaluation, and reburial procedures.

California Public Resources Code Section 15064.5(e)

This law addresses the disposition of Native American burials in archaeological sites and protects such remains from disturbance, vandalism, or inadvertent destruction. The code section establishes procedures to be implemented if Native American skeletal remains are discovered during the construction of a project and establishes the Native American Heritage Commission as the entity responsible to resolve disputes regarding the disposition of such remains.

Assembly Bill 52

Assembly Bill (AB) 52 establishes a formal consultation process for California tribes as part of CEQA and equates significant impacts on tribal cultural resources with significant environmental impacts. AB 52 defines a "California Native American Tribe" as a Native American tribe located in California that is on the contact list maintained by the Native American Heritage Commission.

AB 52 requires formal consultation with California Native American Tribes prior to determining the level of environmental document if a tribe has requested to be informed by the lead agency of proposed projects. AB 52 also requires that consultation address project alternatives, mitigation measures, for significant effects, if requested by the California Native American Tribe, and that consultation be considered concluded when either the parties agree to measures to mitigate or avoid a significant effect, or the agency concludes that mutual agreement cannot be reached. Under AB 52, such measures shall be recommended for inclusion in the environmental document and adopted mitigation monitoring program if determined to avoid or lessen a significant impact on a tribal cultural resource.

CULTURAL BACKGROUND

Prehistoric Period Background

The Central Valley region was among the first in the state to attract intensive fieldwork, and research has continued to the present day. This has resulted in a substantial accumulation of data.

In the early decades of the 1900s, E.J. Dawson explored numerous sites near Stockton and Lodi, later collaborating with W.E. Schenck (Schenck and Dawson 1929). By 1933, the focus of work was directed to the Cosumnes locality, where survey and excavation studies were conducted by the Sacramento Junior College (Lillard and Purves 1936). Excavation data, in particular from the stratified Windmiller site (CA-Sac-107), suggested two temporally distinct cultural traditions. Later work at other mounds by Sacramento Junior College and the University of California, Berkeley, enabled the investigators to identify a third cultural tradition, intermediate between the previously postulated Early and Late Horizons. The three-horizon sequence, based on discrete changes in ornamental artifacts and mortuary practices, as well as on observed differences in soils within sites (Lillard, Heizer and Fenenga 1939), was later refined by Beardsley (1954). An expanded definition of artifacts diagnostic of each time period was developed, and its application extended to parts of the central California coast. Traits held in common allow the application of this system within certain limits of time and space to other areas of prehistoric central California.

The Windmiller Culture (Early Horizon) is characterized by ventrally-extended burials (some dorsal extensions are known), with westerly orientation of heads; a high percentage of burials with grave goods; frequent presence of red ocher in graves; large projectile points, of which 60 percent are of materials other than obsidian; rectangular *Haliotis* beads; *Olivella* shell beads (types A1a and L); rare use of bone; some use of baked clay objects; and well-fashioned charmstones, usually perforated.

The Cosumnes Culture (Middle Horizon) displays considerable changes from the preceding cultural expression. The burial mode is predominately flexed, with variable cardinal orientation and some cremations present. There are a lower percentage of burials with grave goods, and ocher staining is common in graves. *Olivella* beads of types C1, F and G predominate, and there is abundant use of green *Haliotis* sp. rather than red *Haliotis* sp. Other characteristic artifacts include perforated and canid teeth; asymmetrical and "fishtail" charmstones, usually unperforated; cobble mortars and evidence of wooden mortars; extensive use of bone for tools and ornaments; large projectile points, with considerable use of rock other than obsidian; and use of baked clay.

Hotchkiss Culture (Late Horizon) -- The burial pattern retains the use of the flexed mode, and there is wide spread evidence of cremation, lesser use of red ocher, heavy use of baked clay, *Olivella* beads of Types E and M, extensive use of *Haliotis* ornaments of many elaborate shapes and forms, shaped mortars and cylindrical pestles, bird-bone tubes with elaborate geometric designs, clam shell disc beads, small projectile points indicative of the introduction of the bow and arrow, flanged tubular pipes of steatite and schist, and use of magnesite (Moratto 1984:181-183). The characteristics noted are not all-inclusive, but cover the more important traits.

Schulz (1981), in an extensive examination of the central California evidence for the use of acorns, used the terms Early, Middle and Late Complexes, but the traits attributed to them remain generally the same. While it is not altogether clear, Schulz seemingly uses the term "Complex" to refer to the particular archeological entities (above called "Horizons") as defined in this region. Ragir's (1972) cultures are the same as Schulz's complexes.

Bennyhoff and Hughes (1984) have presented alternative dating schemes for the Central California Archeological Sequence. The primary emphasis is a more elaborate division of the horizons to reflect what is seen as cultural/temporal changes within the three horizons and a compression of the temporal span.

There have been other chronologies proposed, including Fredrickson (1973), and since it is correlated with Bennyhoff's (1977) work, it does merit discussion. The archeological cultural entities Fredrickson has defined, based upon the work of Bennyhoff, are patterns, phases, and aspects. Bennyhoff's (1977) work in the Plains Miwok area is the best definition of the Cosumnes District, which likely conforms to Fredrickson's pattern. Fredrickson also proposed periods of time associated heavily with economic modes, which provides a temporal term for comparing contemporary cultural entities. It corresponds with Willey and Phillips's (1958) earlier "tradition", although it is tied more specifically to the archeological record in California.

Ethnological Background

The City of Atwater's General Plan Study Area lies within the northern portion of the ethnographic territory of the Yokuts people. The Yokuts were members of the Penutian language family that held all of the Central Valley, San Francisco Bay Area, and the Pacific Coast from Marin County to near Point Sur. The Yokuts differed from other ethnographic groups in California as they had true tribal divisions with group names (Kroeber 1925; Latta 1949). Each tribe spoke a particular dialect, common to its members, but similar enough to other Yokuts that they were mutually intelligible (Kroeber 1925).

The Yokuts held portions of the San Joaquin Valley from the Tehachapi range in the south to Stockton in the north. On the north they were bordered by the Plains Miwok, and on the west by the Saclan or Bay Miwok and Costonoan peoples. Although neighbors were often from distinct language families, differences between the people appear to have been more influenced by environmental factors as opposed to linguistic affinities. Thus, the Plains Miwok were more similar to the nearby Yokuts than to foothill members of their own language group. Similarities in cultural inventory co-varied with distance from other groups and proximity to culturally diverse people.

The material culture of the southern San Joaquin Yokuts was therefore more closely related to that of their non-Yokuts neighbors than to that of Delta members of their own language group.

Trade was well developed, with mutually beneficial interchange of needed or desired goods. Obsidian, rare in the San Joaquin Valley, was obtained by trade with Paiute and Shoshoni groups on the eastern side of the Sierra Nevada, where numerous sources of this material are located, and to some extent from the Napa Valley to the north. Shell beads, obtained by the Yokuts from coastal people, and acorns, rare in the Great Basin, were among many items exported to the east by Yokuts traders (Davis 1961).

Economic subsistence was based on the acorn, with substantial dependency on gathering and processing of wild seeds and other vegetable foods. The rivers, streams, and sloughs that formed a maze within the valley provided abundant food resources such as fish, shellfish, and turtles. Game, wild fowl, and small mammals were trapped and hunted to provide protein augmentation of the diet. In general, the eastern portion of the San Joaquin Valley provided a lush environment of varied food resources, with the estimated large population centers reflecting this abundance (Cook 1955; Baumhoff 1963).

The 1833 malaria epidemic that decimated the Indians in the Central Valley played a major role in defining the post-Contact land use pattern of the Indians of the region, as well as impacting Euro-American economic development. The introduction of malaria to central California *circa* 1831 occurred as a result of expeditions of several fur brigades of the Hudson's Bay Company with infected individuals. The introduction of the disease led to the tremendous epidemic of 1833, resulting in the decimation of the Indian population of the region. An estimated three-quarter of the total Indian population of the region died from the disease in that year.

The Atwater area, north of the Merced River was occupied by the Northern Valley Yokuts, specifically the *Coconoon* tribelet. Settlements were oriented along the water ways, with their village sites normally placed adjacent to these features for their nearby water and food resources. House structures varied in size and shape (Latta 1949; Kroeber 1925), with most constructed from the readily available tules found in the extensive marshes of the low-lying valley areas. The housepit depressions for the structures ranged in diameter from 3 meters to 18 meters (Wallace 1978:470).

Historic Period Background

Early exploration of the great interior valleys of the San Joaquin and Sacramento Rivers began in the early years of the nineteenth century. Active exploration began to help control Indian riads on coastal settlements as well as to find suitable locations for missions for Indian conversion. There were several minor explorations, followed by a full-scale effort by Gabriel Morage with 26 men, leaving Mission San Juan Bautista in 1806, likely entering the valley by way of San Luis Creek in Merced County. The group proceeded across the San Joaquin River, and reached a slough that Morage named Las Mariposas for the number of butterflies they observed. The party travelled north and northwest, eventually reaching and naming the Merced River. Moraga again explored the Merced River's lower course in 1808, and again in 1810. The mission fathers though the exploration was a failure since they failed to find suitable sites for an inland chain of missions.

The first American to pass though the San Joaquin Valley was Jedidiah Smith. He may not have travelled within the boundaries of Merced County. Following Smith were other adventurers, many of whom came to California to trap beaver. John C. Fremont, proceeded southward from Sutter's Fort, passing through what is now Merced County, and reached the Merced River. The party built a raft and crossed the river near its junction with the San Joaquin River. Several days later, they stopped on the north bank of Bear Creek, five miles above the mouth of the creek.

The Atwater Planning Area does not lie on any portion of the 1840s Mexican land grants present in the County.

Atwater began as a station on the line of the Central Pacific, as they built their line south and east down the valley. The station was placed on the ranch of Marshall D. Atwater, a leading wheat farmer in the area. Six years later, a town with the same name was established by the Merced Land and Fruit Company. Atwater, John Mitchell, and George Bloss, all made substantial contributions to the towns of Atwater and other cities in the Merced region. The Bloss home is the headquarters of the Atwater Historical Society, and is a house museum. The family endowed many other local Atwater institutions.

The Merced Army Air Field south of town was one of many small fields established in World War II for training flight personnel. It later became Castle Air Force Base, re-named for Frederick Castle, a Medal of Honor award winner after he was shot down in late 1944. In 1981, the Castle Air Museum opened next to the base. The base closed in 1995.

RESEARCH

A record search was conducted for the project area at the Central California Information Center (CCIC) of the California Historical Resources Information System for the Atwater General Plan Update on August 29, 2023 as RS12636I (Appendix 2).

Since this is a current search that included the project area, we can use the maps to indicate there are no sites in the project area, and no surveys covering any substantial portion of the project area.

FIELD ASSESSMENT

Michael Lawson (resume, Appendix 1) completed a field survey of the project site on December 28, 2023, with a complete inspection of the proposed project site (Figure 2). The survey was conducted along the two proposed alignments to either widen Bellevue Road, or re-Route it through agricultural land to the south.

Complete survey consisted of parallel transects five to ten meters apart along both sides of Bellevue Road to a width of 20 meters, and along proposed alternate route through fruit orchards with a maximum observed width of 30 meters.

Soil through the orchards consisted of sand and light silt, light tan in color and likely disturbed by farming. The soil along Bellevue Road was similar but with added gravel road base and loam fill.

The survey was negative for historic and prehistoric resources.

RECOMMENDATIONS

Although there is no evidence of prehistoric period occupancy or use of the parcel, if artifacts, exotic rock, or unusual amounts of shell or bone are uncovered during the construction, the construction team should stop in that area immediately and a qualified archeologist should be contacted to evaluate the deposit. If the bone appears to be human, the Merced County Coroner and Native American Heritage Commission must be contacted (916-378-3710). No other mitigation measure is recommended.

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APPENDIX 1

Resumes

PEAK & ASSOCIATES, INC.

RESUME

MELINDA A. PEAK **January 2023**

Senior Historian/Archeologist
3941 Park Drive, Suite 20 #329
El Dorado Hills, CA 95762
(916) 939-2405

PROFESSIONAL EXPERIENCE

Ms. Peak has served as the principal investigator on a wide range of prehistoric and historic excavations throughout California. She has directed laboratory analyses of archeological materials, including the historic period. She has also conducted a wide variety of cultural resource assessments in California, including documentary research, field survey, Native American consultation, and report preparation.

In addition, Ms. Peak has developed a second field of expertise in applied history, specializing in site-specific research for historic period resources. She has completed a number of historical research projects for a wide variety of site types.

Through her education and experience, Ms. Peak meets the Secretary of Interior Standards for historian, architectural historian, prehistoric archeologist, and historic archeologist.

EDUCATION

M.A. - History - California State University, Sacramento, 1989

Thesis: *The Bellevue Mine: A Historical Resources Management Site Study in Plumas and Sierra Counties, California*

B.A. - Anthropology - University of California, Berkeley

PROJECTS

In recent months, Ms. Peak has completed several determinations of eligibility and effect documents in coordination with the Corps of Engineers for projects requiring federal permits, assessing the eligibility of many varying types of sites for the National Register of Historic Places.

She has also completed historical research projects on a wide variety of topics for numbers of projects including the development of navigation and landings on the Napa River, wineries, farmhouses dating to the 1860s, bridges, an early roadhouse, Folsom Dam, and a section of an electric railway line.

In recent years, Ms. Peak has prepared many cultural resource overviews and predictive models for blocks of land proposed for future development for general and specific plans. She has been able to field direct a number of surveys of these areas, allowing the model to be tested.

She served as principal investigator for the multi-phase Twelve Bridges Golf Club project in Placer County. She served as liaison with the various agencies, helped prepare the historic properties treatment plan, managed the various phases of test and data recovery excavations, and completed the final report on the analysis of the test phase excavations of several prehistoric sites. She is has served as the principal investigator for several large excavations, coordinating contacts with Native Americans, the Corps of Engineers, and the Office of Historic Preservation.

Ms. Peak has served as project manager for other major survey and excavation projects, including the many surveys and site definition excavations for the 172-mile-long Pacific Pipeline proposed for construction in Santa Barbara, Ventura, and Los Angeles counties. She also completed an archival study in the City of Los Angeles for the project. She also served as principal investigator for a major coaxial cable removal project for AT&T.

Additionally, she completed a number of small surveys, served as a construction monitor at several urban sites, and conducted emergency recovery excavations for sites found during monitoring. She has directed the excavations of several historic complexes in Sacramento, Placer, and El Dorado Counties.

Ms. Peak is the author of a chapter and two sections of a published history (1999) of Sacramento County, *Sacramento: Gold Rush Legacy, Metropolitan Legacy*. She served as the consultant for a children's book on California, published by Capstone Press in 2003 in the Land of Liberty series.

PEAK & ASSOCIATES, INC.

RESUME

MICHAEL LAWSON **January 2023**

Archeological Field Director
3941 Park Drive, Suite 20-329
El Dorado Hills, CA 95672
(916) 939-2405

PROFESSIONAL EXPERIENCE

Mr. Lawson has compiled an excellent record of undertaking excavation and survey projects for both the public and private sectors over the past thirty years. He has conducted many surveys throughout northern and central California and Hawaii, as well as serving as an archeological technician, site monitor, crew chief and field director for numbers of excavation projects.

Mr. Lawson is qualified by the Bureau of Land Management as a field director for archeological surveys and excavations. In 2022, he led teams as the field director on several field surveys in the Sierras for the proposed undergrounding of PG&E transmission lines, dealing with both historic and prehistoric cultural resources. Lawson works for several firms based in the Sacramento Area and Bay Area.

EDUCATION

B.A. - Anthropology - California State University, Sacramento.

Special Course: Comparative Osteology. University of Tennessee, Knoxville. Forensic Anthropology Center. January 2018.

The special course included: intensive lab and outdoor study with human example from outdoor research facility, including typical and non-metric examples, compared with fifty non-human species most confused with human remains. Work at the outdoor research facility "The Body Farm" study included survey, photography, collection, and identification of faunal and human bone fragments, with a Power Point presentation discussing finds.

EXPERIENCE

- Extensive monitoring of open space, streets and project development areas for prehistoric period and historic period resources. Areas monitored include Sutter Street in Folsom; Mud Creek Archeological District in Chico; Camp Roberts, San Luis Obispo County; Avila Beach, San Luis Obispo County; Edgewood Golf Course, South Lake Tahoe; Davis Water Project, Davis; Star Bend levee section, Sutter County; Feather River levees, Sutter County; Bodega Bay, Sonoma County; San Jose BART line extension, Santa Clara County; and numerous sites for PG&E in San Francisco.

- Over thirty years of experience working in cultural resource management, volunteer, and academic settings in California historic, proto-historic, and prehistoric archaeology.

- Expertise in pedestrian survey, excavation, feature (including burial) exposure, laboratory techniques, research. Field positions include field director, assistant field director, crew chief and lead technician.

APPENDIX B: ENVIRONMENTAL NOISE ASSESSMENT

Environmental Noise Assessment

Bellevue Reconstruction/Realignment Project

City of Atwater, California

February 9, 2024

Project #240103

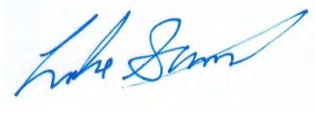
Prepared for:

DE NOVO PLANNING GROUP

De Novo Planning Group
1020 Suncast Lane #106
El Dorado Hills, California 95762

Prepared by:

Saxelby Acoustics LLC



Luke Saxelby, INCE Bd. Cert.
Principal Consultant
Board Certified, Institute of Noise Control Engineering (INCE)

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INTRODUCTION

The proposed Bellevue Road Reconstruction/Realignment Project would begin on existing Bellevue Road between Olive Avenue and Grove Avenue to the west and end at the intersection of Parade Street and Bellevue Road to the east. The project would restore Bellevue Road as a major entry to the northern portion of the City of Atwater (City), provide a direct route between SR-99, the City of Atwater and the Castle Commerce Center to the east, and would reduce vehicle miles traveled (VMT). The Project site is generally flat and traverses mostly orchards and open fields. Sensitive receptors in the project vicinity include single family homes primarily along the east side of the project area (along Bellevue Road) in addition to several residential uses west of the project area.

Figures 1-3 shows the project site plan for Alternatives 1-3.

ENVIRONMENTAL SETTING

BACKGROUND INFORMATION ON NOISE

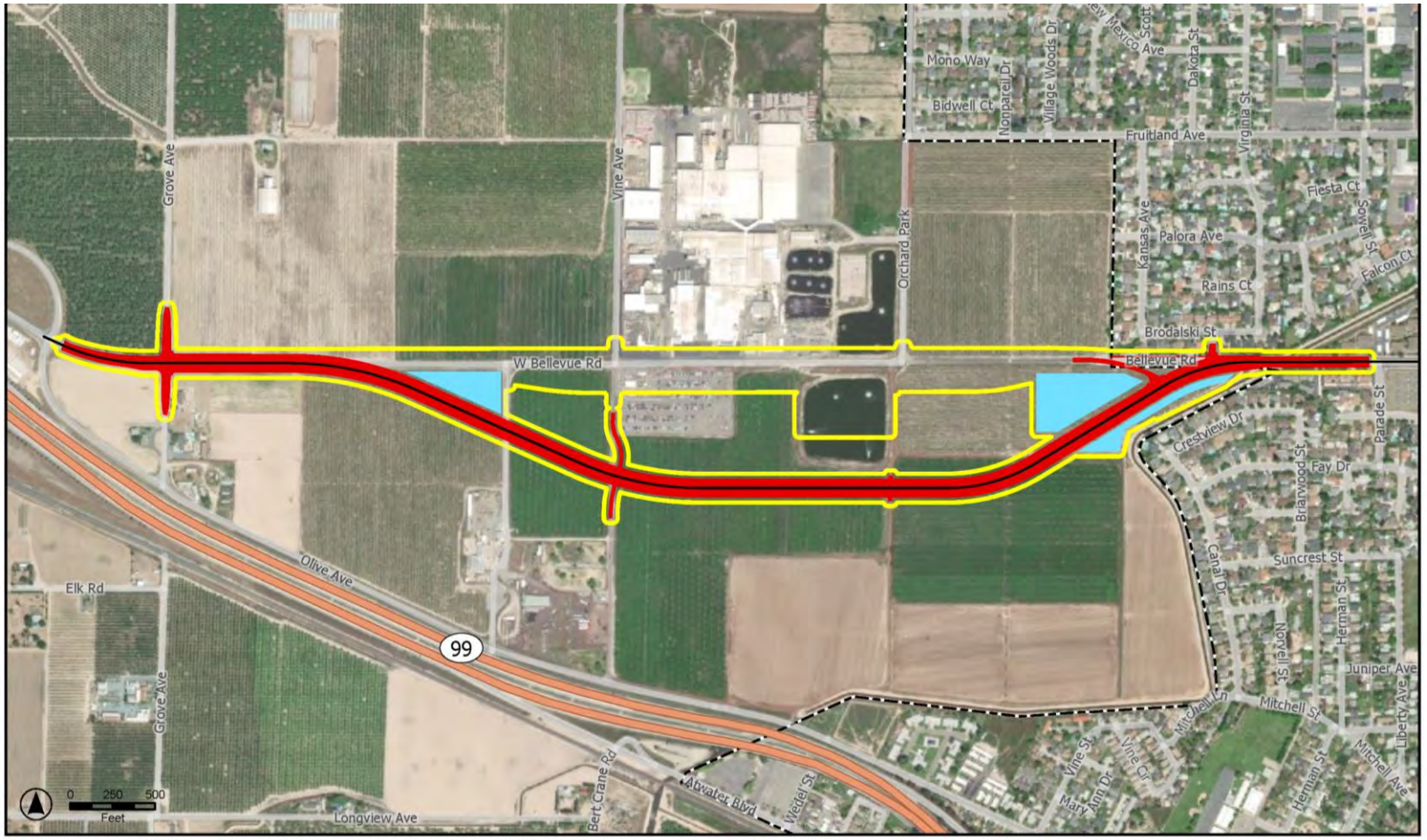
Fundamentals of Acoustics

Acoustics is the science of sound. Sound may be thought of as mechanical energy of a vibrating object transmitted by pressure waves through a medium to human (or animal) ears. If the pressure variations occur frequently enough (at least 20 times per second), then they can be heard and are called sound. The number of pressure variations per second is called the frequency of sound and is expressed as cycles per second or Hertz (Hz).

Noise is a subjective reaction to different types of sounds. Noise is typically defined as (airborne) sound that is loud, unpleasant, unexpected or undesired, and may therefore be classified as a more specific group of sounds. Perceptions of sound and noise are highly subjective from person to person.

Measuring sound directly in terms of pressure would require a very large and awkward range of numbers. To avoid this, the decibel scale was devised. The decibel scale uses the hearing threshold (20 micropascals), as a point of reference, defined as 0 dB. Other sound pressures are then compared to this reference pressure, and the logarithm is taken to keep the numbers in a practical range. The decibel scale allows a million-fold increase in pressure to be expressed as 120 dB, and changes in levels (dB) correspond closely to human perception of relative loudness.

The perceived loudness of sounds is dependent upon many factors, including sound pressure level and frequency content. However, within the usual range of environmental noise levels, perception of loudness is relatively predictable, and can be approximated by A-weighted sound levels. There is a strong correlation between A-weighted sound levels (expressed as dBA) and the way the human ear perceives sound. For this reason, the A-weighted sound level has become the standard tool of environmental noise assessment.



Legend

- Project Boundary
- Atwater City Boundary
- Alternative 1 Alignment
- Alternative 1 Project Footprint
- Alternative 1 Basin

CITY OF ATWATER - BELLEVUE ROAD RECONSTRUCTION/REALIGNMENT PROJECT

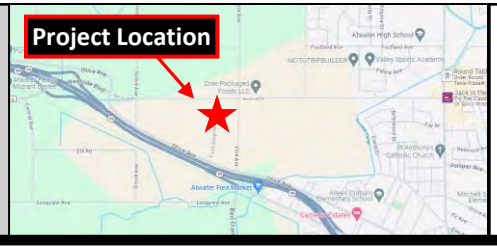
Figure X. Project Alternative 1

Bellevue Realignment Reconstruction Project

City of Atwater, California

Figure 1

Alternative 1



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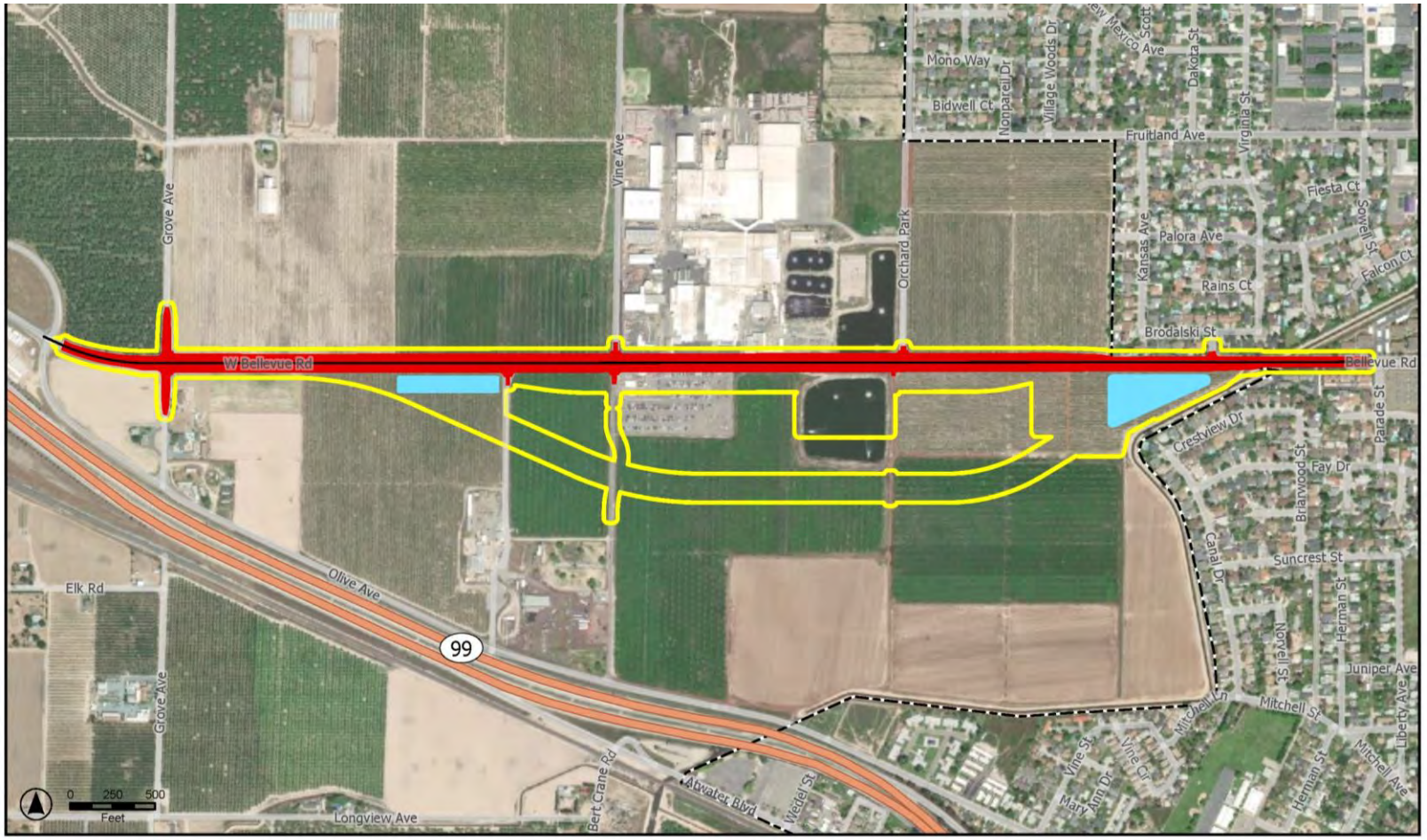


Legend

- Project Boundary
- Atwater City Boundary
- Alternative 2 Alignment
- Alternative 2 Project Footprint
- Alternative 2 Basin

CITY OF ATWATER - BELLEVUE ROAD RECONSTRUCTION/REALIGNMENT PROJECT

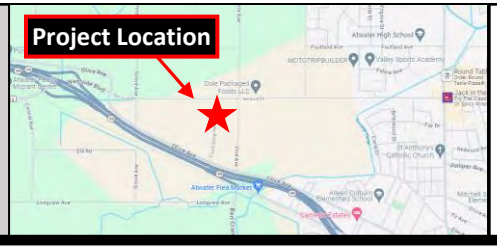
Figure X. Project Alternative 2

Bellevue Realignment Reconstruction Project

City of Atwater, California

Figure 2

Alternative 2



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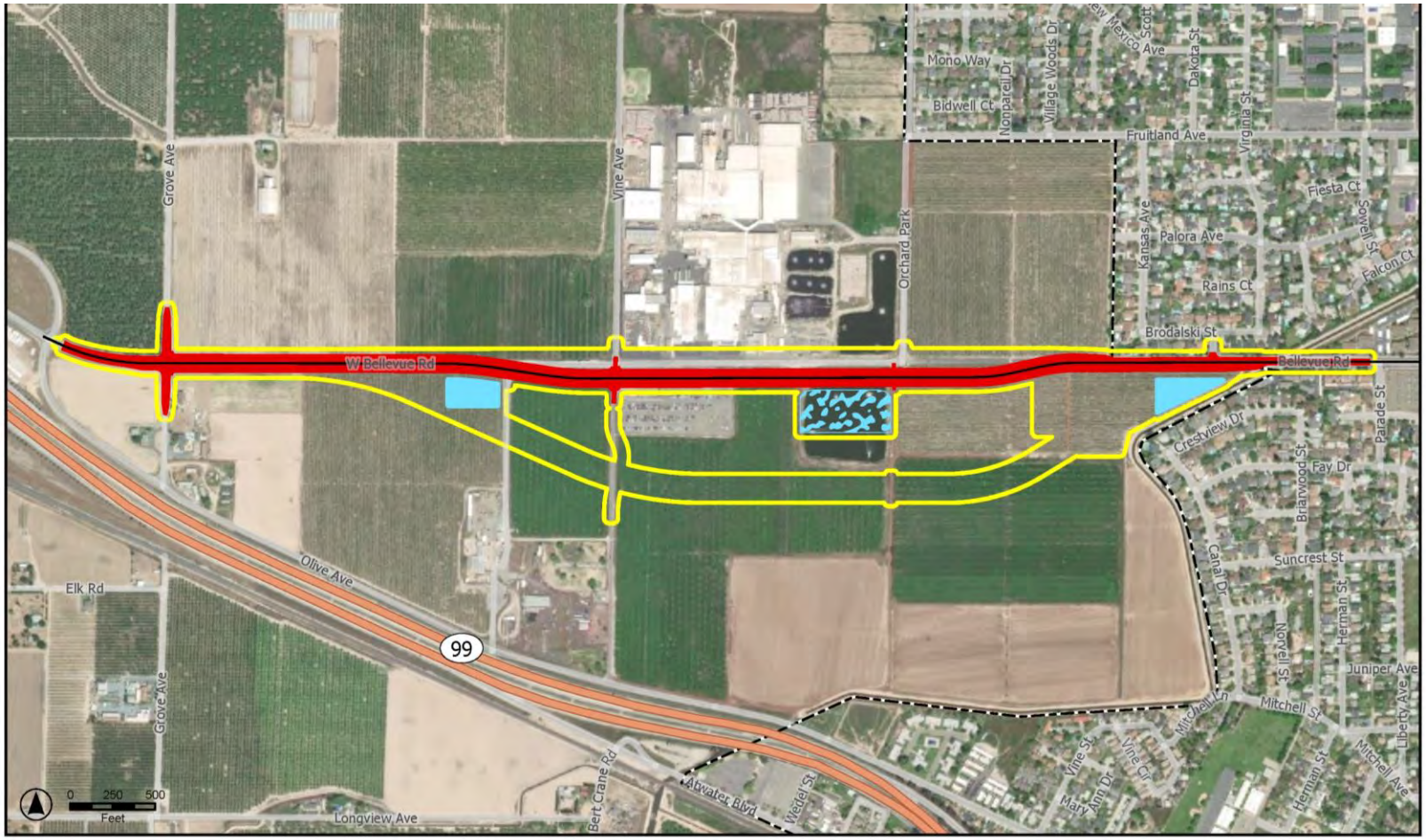


Legend

- Project Boundary
- Atwater City Boundary
- Alternative 3 Alignment
- Alternative 3 Project Footprint
- Alternative 3 Basin
- Alternative 3 Basin to be Reconstructed

CITY OF ATWATER - BELLEVUE ROAD RECONSTRUCTION/REALIGNMENT PROJECT

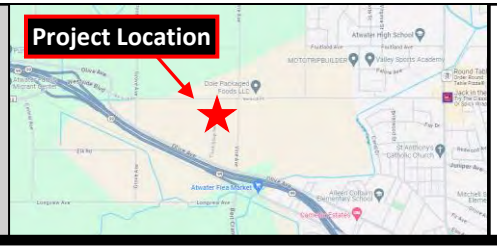
Figure X. Project Alternative 3

Bellevue Realignment Reconstruction Project

City of Atwater, California

Figure 3

Alternative 3



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The decibel scale is logarithmic, not linear. In other words, two sound levels 10-dB apart differ in acoustic energy by a factor of 10. When the standard logarithmic decibel is A-weighted, an increase of 10-dBA is generally perceived as a doubling in loudness. For example, a 70-dBA sound is half as loud as an 80-dBA sound, and twice as loud as a 60-dBA sound.

Community noise is commonly described in terms of the ambient noise level, which is defined as the all-encompassing noise level associated with a given environment. A common statistical tool is the average, or equivalent, sound level (L_{eq}), which corresponds to a steady-state A-weighted sound level containing the same total energy as a time varying signal over a given time period (usually one hour). The L_{eq} is the foundation of the composite noise descriptor, L_{dn}, and shows very good correlation with community response to noise.

The day/night average level (DNL or L_{dn}) is based upon the average noise level over a 24-hour day, with a +10-decibel weighing applied to noise occurring during nighttime (10:00 p.m. to 7:00 a.m.) hours. The nighttime penalty is based upon the assumption that people react to nighttime noise exposures as though they were twice as loud as daytime exposures. Because L_{dn} represents a 24-hour average, it tends to disguise short-term variations in the noise environment.

Table 1 lists several examples of the noise levels associated with common situations. **Appendix A** provides a summary of acoustical terms used in this report.

TABLE 1: TYPICAL NOISE LEVELS

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	--110--	Rock Band
Jet Fly-over at 300 m (1,000 ft.)	--100--	
Gas Lawn Mower at 1 m (3 ft.)	--90--	
Diesel Truck at 15 m (50 ft.), at 80 km/hr. (50 mph)	--80--	Food Blender at 1 m (3 ft.) Garbage Disposal at 1 m (3 ft.)
Noisy Urban Area, Daytime Gas Lawn Mower, 30 m (100 ft.)	--70--	Vacuum Cleaner at 3 m (10 ft.)
Commercial Area Heavy Traffic at 90 m (300 ft.)	--60--	Normal Speech at 1 m (3 ft.)
Quiet Urban Daytime	--50--	Large Business Office Dishwasher in Next Room
Quiet Urban Nighttime	--40--	Theater, Large Conference Room (Background)
Quiet Suburban Nighttime	--30--	Library
Quiet Rural Nighttime	--20--	Bedroom at Night, Concert Hall (Background)
	--10--	Broadcast/Recording Studio
Lowest Threshold of Human Hearing	--0--	Lowest Threshold of Human Hearing

Source: Caltrans, Technical Noise Supplement, Traffic Noise Analysis Protocol. September, 2013.

Effects of Noise on People

The effects of noise on people can be placed in three categories:

- Subjective effects of annoyance, nuisance, and dissatisfaction
- Interference with activities such as speech, sleep, and learning
- Physiological effects such as hearing loss or sudden startling

Environmental noise typically produces effects in the first two categories. Workers in industrial plants can experience noise in the last category. There is no completely satisfactory way to measure the subjective effects of noise or the corresponding reactions of annoyance and dissatisfaction. A wide variation in individual thresholds of annoyance exists and different tolerances to noise tend to develop based on an individual's past experiences with noise.

Thus, an important way of predicting a human reaction to a new noise environment is the way it compares to the existing environment to which one has adapted: the so-called ambient noise level. In general, the more a new noise exceeds the previously existing ambient noise level, the less acceptable the new noise will be judged by those hearing it.

With regards to increases in A-weighted noise level, the following relationships occur:

- Except in carefully controlled laboratory experiments, a change of 1-dBA cannot be perceived;
- Outside of the laboratory, a 3-dBA change is considered a just-perceivable difference;
- A change in level of at least 5-dBA is required before any noticeable change in human response would be expected; and
- A 10-dBA change is subjectively heard as approximately a doubling in loudness and can cause an adverse response.

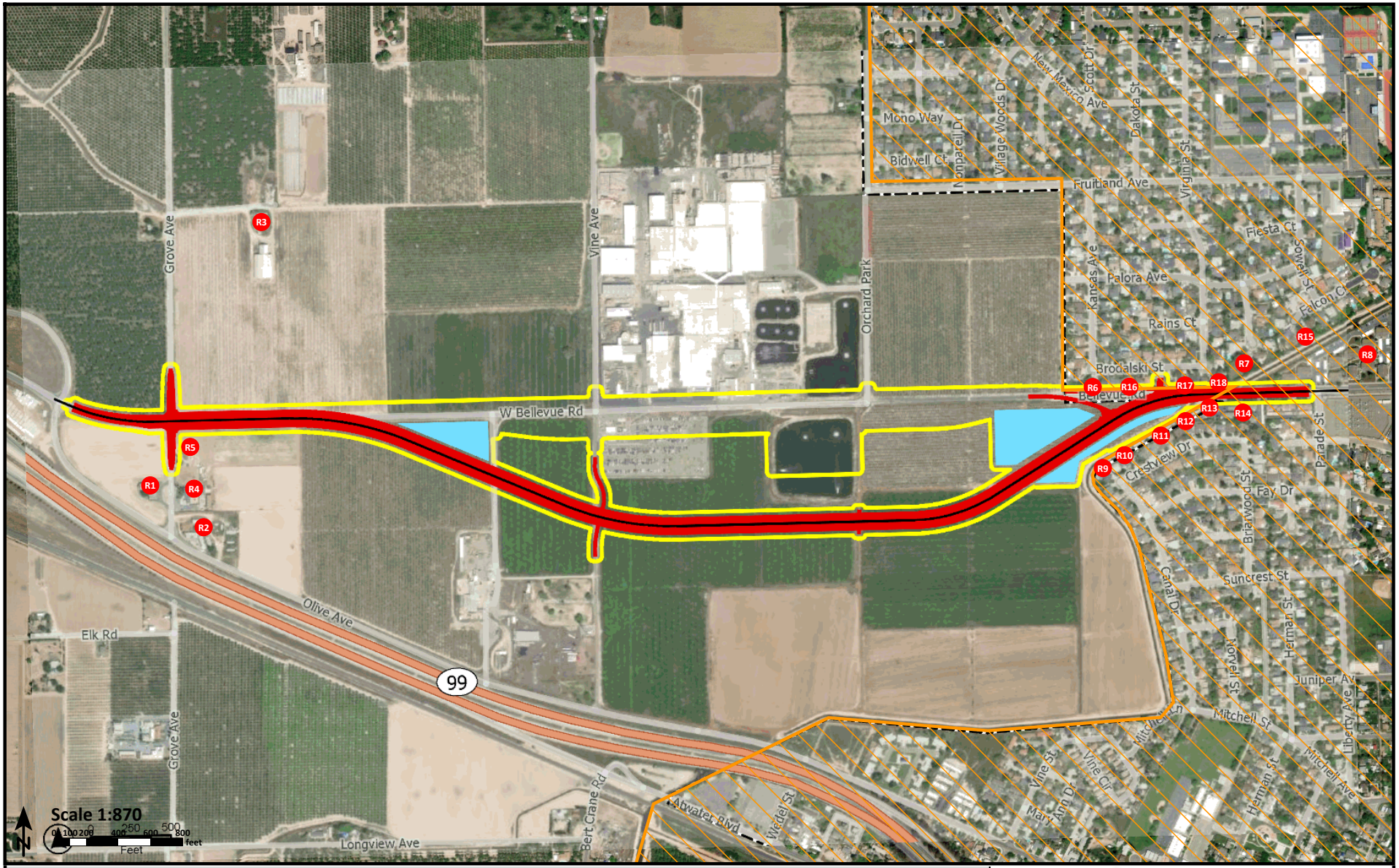
Stationary point sources of noise – including stationary mobile sources such as idling vehicles – attenuate (lessen) at a rate of approximately 6-dB per doubling of distance from the source, depending on environmental conditions (i.e. atmospheric conditions and either vegetative or manufactured noise barriers, etc.). Widely distributed noises, such as a large industrial facility spread over many acres or a street with moving vehicles, would typically attenuate at a lower rate.

EXISTING NOISE AND VIBRATION ENVIRONMENTS

EXISTING NOISE RECEPTORS

Some land uses are considered more sensitive to noise than others. Land uses often associated with sensitive receptors generally include residences, schools, libraries, hospitals, and passive recreational areas. Sensitive noise receptors may also include threatened or endangered noise-sensitive biological species, although many jurisdictions have not adopted noise standards for wildlife areas. Noise sensitive land uses are typically given special attention in order to achieve protection from excessive noise.

Sensitivity is a function of noise exposure (in terms of both exposure duration and insulation from noise) and the types of activities involved. In the vicinity of the project site, sensitive land uses include existing single-family residential uses located near the west and east ends of the project. Sensitive receptor locations analyzed in this report are shown on **Figure 4**.



Bellevue Realignment Reconstruction

City of Atwater, CA

Figure 4
Receptors Location Map

Legend

- City of Atwater Limits
- Project Site
- 3 Outdoor Area Noise Level

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EXISTING GENERAL AMBIENT NOISE LEVELS

The existing noise environment in the project area is primarily defined by traffic on the SR 99 and local roadways. To quantify the existing ambient noise environment in the project vicinity, Saxelby Acoustics conducted continuous (24-hr.) noise level measurements at three locations in the project area. Noise measurement locations are shown on **Figure 5**. A summary of the noise level measurement survey results is provided in **Table 2**. **Appendix B** contains the complete results of the noise monitoring.

The sound level meters were programmed to record the maximum, median, and average noise levels at each site during the survey. The maximum value, denoted L_{max}, represents the highest noise level measured. The average value, denoted L_{eq}, represents the energy average of all the noise received by the sound level meter microphone during the monitoring period. The median value, denoted L_{50}, represents the sound level exceeded 50 percent of the time during the monitoring period.

Larson Davis Laboratories (LDL) model 820 precision integrating sound level meters were used for the ambient noise level measurement survey. The meters were calibrated before and after use with a CAL200 acoustical calibrator to ensure the accuracy of the measurements. The equipment used meets all pertinent specifications of the American National Standards Institute for Type 1 sound level meters (ANSI S1.4).

TABLE 2: SUMMARY OF EXISTING BACKGROUND NOISE MEASUREMENT DATA

Location	Date	L_{dn}	Daytime L_{eq}	Daytime L_{50}	Daytime L_{max}	Nighttime L_{eq}	Nighttime L_{50}	Nighttime L_{max}
LT-1: 50 feet to CL of Bellevue Rd.	1/18/24	63	55	51	75	58	55	71
LT-2: 200 feet to CL of SR-99	1/18/24	80	75	75	84	73	71	84
LT-3: 200 feet to CL of Bellevue Rd.	1/18/24	66	62	58	81	59	57	75

- *All values shown in dBA*
- *Daytime hours: 7:00 a.m. to 10:00 p.m.*
- *Nighttime Hours: 10:00 p.m. to 7:00 a.m.*
- *Source: Saxelby Acoustics, 2024.*

Bellevue Realignment Reconstruction

City of Atwater, California

Figure 5

Noise Measurement Sites

Legend

▲ Noise Measurement Site - Long Term

0 ft 500 ft 1000 ft 1500 ft

Projection: UTM Zone 10 / WGS84 / meters
Rev. Date: 01/23/2024

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FUTURE TRAFFIC NOISE ENVIRONMENT AT SENSITIVE RECEPTORS

OFF-SITE TRAFFIC NOISE IMPACT ASSESSMENT METHODOLOGY

To assess noise impacts due to project-related traffic increases on the local roadway network, traffic noise levels are predicted at sensitive receptors for existing and design year, project, and no-project conditions for alternatives 1-3.

Existing, design year, and design year plus project noise levels due to traffic were calculated using the Federal Highway Administration Highway Traffic Noise Prediction Models (FHWA RD-77-108). The model is based upon the Calveno reference noise factors for automobiles, medium trucks and heavy trucks, with consideration given to vehicle volume, speed, roadway configuration, distance to the receiver, and the acoustical characteristics of the site. The FHWA model was developed to predict hourly L_{eq} values for free-flowing traffic conditions. To predict traffic noise levels in terms of L_{dn}, it is necessary to adjust the input volume to account for the day/night distribution of traffic.

Project trip generation volumes were provided by the project traffic engineer (Fehr & Peers 2024), truck usage and vehicle speeds on the local area roadways were estimated from field observations. The predicted increases in traffic noise levels on the local roadway network which would result from the project are provided in terms of L_{dn}.

The modeled noise levels for the project roadway network, including State Highway 99, were mapped using the SoundPLAN noise prediction model calibrated to existing conditions and adjusted to account for the changes in roadway traffic and Bellevue Road alignment.

Table 3 summarizes the modeled traffic noise levels at each of the identified receptor locations along Bellevue Road. **Appendix C** provides the traffic inputs used in the traffic noise modeling.

TABLE 3: TRAFFIC NOISE LEVELS, DBA L_{DN}

R#	Existing	Design Year	Alternative 1	Alternative 2	Alternative 3
1	65.5	65.5	65.7	65.7	65.7
2	71.6	71.6	71.6	71.6	71.6
3	62.3	62.3	62.4	62.4	62.4
4	67.5	67.6	67.7	67.7	67.7
5	65.7	65.8	66.6	66.6	66.6
6	59.1	59.5	61.6	67.5	67.3
7	58.6	58.7	61.8	62.2	62.2
8	53.5	53.6	55.0	55.1	55.1
9	61.7	61.7	63.8	62.5	62.5
10	56.8	56.4	62.1	59.8	59.8
11	56.4	56.3	62.2	61.0	61.0
12	57.6	58.6	64.0	63.2	63.2
13	60.1	61.5	67.0	65.5	65.5
14	56.3	56.8	59.6	59.1	59.1
15	55.4	55.5	57.4	57.5	57.5
16	58.9	59.4	63.3	67.9	67.8
17	64.1	62.1	64.8	67.1	67.1
18	62.2	61.1	64.3	65.8	65.8

CONSTRUCTION NOISE ENVIRONMENT

During the construction of the proposed project, noise from construction activities would temporarily add to the noise environment in the project vicinity. As shown in **Table 4**, activities involved in construction would generate maximum noise levels ranging from 76 to 90 dB at a distance of 50 feet.

TABLE 4: CONSTRUCTION EQUIPMENT NOISE

Type of Equipment	Maximum Level, dBA at 50 feet
Auger Drill Rig	84
Backhoe	78
Compactor	83
Compressor (air)	78
Concrete Saw	90
Dozer	82
Dump Truck	76
Excavator	81
Generator	81
Jackhammer	89
Pneumatic Tools	85

Source: Roadway Construction Noise Model User's Guide. Federal Highway Administration. FHWA-HEP-05-054. January 2006.

CONSTRUCTION VIBRATION ENVIRONMENT

The primary vibration-generating activities associated with the proposed project would occur during construction when activities such as grading, utilities relocation, and paving occur. **Table 5** shows the typical vibration levels produced by construction equipment.

TABLE 5: VIBRATION LEVELS FOR VARIOUS CONSTRUCTION EQUIPMENT

Type of Equipment	Peak Particle Velocity at 25 feet (inches/second)	Peak Particle Velocity at 50 feet (inches/second)	Peak Particle Velocity at 100 feet (inches/second)
Large Bulldozer	0.089	0.031	0.011
Loaded Trucks	0.076	0.027	0.010
Small Bulldozer	0.003	0.001	0.000
Auger/drill Rigs	0.089	0.031	0.011
Jackhammer	0.035	0.012	0.004
Vibratory Hammer	0.070	0.025	0.009
Vibratory Compactor/roller	0.210 (Less than 0.20 at 26 feet)	0.074	0.026

Source: Transit Noise and Vibration Impact Assessment Guidelines. Federal Transit Administration. May 2006.

REGULATORY CONTEXT

FEDERAL

There are no federal regulations related to noise that apply to the Proposed Project.

STATE

California Environmental Quality Act

The California Environmental Quality Act (CEQA) Guidelines, Appendix G, indicate that a significant noise impact may occur if a project exposes persons to noise or vibration levels in excess of local general plans or noise ordinance standards, or cause a substantial permanent or temporary increase in ambient noise levels. CEQA standards are discussed more below under the Thresholds of Significance section.

LOCAL

City of Atwater General Plan

Policy NO-2.4. Mitigate noise created by new transportation noise sources consistent with the levels specified in Table 6-6 **(Table 6)** in outdoor activity areas or interior spaces of existing noise-sensitive land uses.

TABLE 6: MAXIMUM ALLOWABLE NOISE EXPOSURE TRANSPORTATION NOISE SOURCES

Land Use	Outdoor Activity Areas[1] L_{dn}/CNEL, dBA	Interior Spaces	
		L_{dn}/CNEL, dBA	L_{eq}[1], dBA[2]
Residential	60[3]	45	--
Transient Lodging	60[3]	45	--
Hospitals, Nursing Homes	60[3]	45	--
Theaters, Auditoriums, Music Halls	60[3]	--	35
Churches, Meeting Halls	60[3]	--	40
Office Buildings	--	--	45
Schools, Libraries, Museums	60[3]	--	45
Playgrounds, Neighborhood Parks	70	--	--

Policy NO-2.5. Consider the significance of noise level increases associated with major roadway improvement projects prior to construction. In instances where mitigation will not reduce noise volumes to the levels recommended in Table 6-6 **(Table 6)**, the following criteria should be used as a test of significance for roadway improvement projects:

a. Where existing traffic noise levels are less than 60 dB L_{dn}, in the outdoor activity areas of noise-sensitive uses, roadway improvement projects which increase noise levels to 60 dB L_{dn} will not be considered significant.

b. Where existing traffic noise levels range between 60 and 65 dB L_{dn} in the outdoor activity areas of noise-sensitive land uses, a +3 dB L_{dn} increase in noise levels due to a roadway improvement project will be considered significant.

c. Where existing traffic noise levels are greater than 65 dB L_{dn} in the outdoor activity areas on noise-sensitive uses, a +1.5 dB L_{dn} increase in noise levels due to a roadway improvement project will be considered significant.

City of Atwater Municipal Code – 8.44.050 Construction

8.44.050 Construction

A. Permissible Hours of Construction. All construction for which a grading or building permit is required shall be conducted between the hours of 7:00 a.m. and 7:00 p.m., Monday through Friday, and 9:00 a.m. and 5:00 p.m. Saturdays and Sundays. For purposes of this section, "construction" or "construction activity" shall include site preparation, demolition, grading, excavation, and the erection, improvement, remodeling or repair of structures, including operation of equipment or machinery and the delivery of materials associated with those activities.

Merced County General Plan

The following noise level standards have been developed in order to quantify noise impacts in the County. Table HS-1 (**Table 7)** shows the noise level standards for noise-sensitive areas affected by traffic, railroad, or airport noise sources in the County. Table HS-2 shows the interior and exterior noise level standards for noise-sensitive areas affected by existing non-transportation noise sources in the County. In addition to these standards, the policies in this section address ways to reduce or eliminate existing and future conflicts between land uses and noise.

TABLE 7: NOISE STANDARDS FOR NEW USES AFFECTED BY TRAFFIC, RAILROAD, AND AIRPORT NOISE

New Land Use	Sensitive[1] Outdoor Area (L_{dn})	Sensitive Interior[2] Area (L_{dn})	Notes
All Residential	65	45	3
Transient Lodging	65	45	3,4
Hospitals & Nursing Homes	65	45	3,4,5
Theaters & Auditoriums	---	35	4
Churches, Meeting Halls, Schools, Libraries, etc.	65	40	4
Office Buildings	65	45	4
Commercial Buildings	---	50	4
Playgrounds, Parks, etc.	70	---	
Industry	65	50	4

Notes:

1. Sensitive Outdoor Areas include primary outdoor activity areas associated with any given land use at which noise-sensitivity exists and the location at which the County's exterior noise level standards are applied.

2. Sensitive Interior Areas includes any interior area associated with any given land use at which noisesensitivity exists and the location at which the County's interior noise level standards are applied. Examples of sensitive interior spaces include, but are not limited to, all habitable rooms of residential and transient lodging facilities, hospital rooms, classrooms, library interiors, offices, worship spaces, theaters. Interior noise level standards are applied within noise-sensitive areas of the various land uses with windows and doors in the closed positions.

3. Railroad warning horn usage shall not be included in the computation of L_{dn}.

4. Only the interior noise level standard shall apply if there are no sensitive exterior spaces proposed for these uses.

5. Since hospitals are often noise-generating uses, the exterior noise level standards are applicable only to clearly identified areas designated for outdoor relaxation by either hospital staff or patients.

Policy HS-7.9: Transportation Project Construction/Improvements (RDR)

Require transportation project proponents to prepare all acoustical analysis for all roadway and railway construction projects in accordance with Policy HS-7.2; additionally, rail projects shall require the preparation of a groundborne vibration analysis in accordance with Policy HS-7.2. Consider noise mitigation measures to reduce traffic and/or rail noise levels to comply with Table HS-1 standards if pre-project noise levels already exceed the noise standards of Table HS-1 and the increase is significant. The County defines a significant increase as follows:

Pre-Project Noise Environment (L_{dn})	Significant Increase
Less than 60 dB	5+ dB
60 – 65 dB	3+ dB
Greater than 65 dB	1.5+ dB

CRITERIA FOR ACCEPTABLE VIBRATION

Vibration is like noise in that it involves a source, a transmission path, and a receiver. While vibration is related to noise, it differs in that noise is generally considered to be pressure waves transmitted through air, whereas vibration usually consists of the excitation of a structure or surface. As with noise, vibration consists of an amplitude and frequency. A person's perception to the vibration will depend on their individual sensitivity to vibration, as well as the amplitude and frequency of the source and the response of the system which is vibrating.

Vibration can be measured in terms of acceleration, velocity, or displacement. A common practice is to monitor vibration measures in terms of peak particle velocities in inches per second. Standards pertaining to perception

as well as damage to structures have been developed for vibration levels defined in terms of peak particle velocities.

Human and structural response to different vibration levels is influenced by a number of factors, including ground type, distance between source and receptor, duration, and the number of perceived vibration events. **Table 8**, which was developed by Caltrans, shows the vibration levels which would normally be required to result in damage to structures. The vibration levels are presented in terms of peak particle velocity in inches per second.

Table 8 indicates that the threshold for architectural damage to structures is 0.20 in/sec p.p.v. A threshold of 0.20 in/sec p.p.v. is considered to be a reasonable threshold for short-term construction projects.

TABLE 8: EFFECTS OF VIBRATION ON PEOPLE AND BUILDINGS

Peak Particle Velocity		Human Reaction	Effect on Buildings
mm/second	in/second		
0.15-0.30	0.006-0.019	Threshold of perception; possibility of intrusion	Vibrations unlikely to cause damage of any type
2.0	0.08	Vibrations readily perceptible	Recommended upper level of the vibration to which ruins and ancient monuments should be subjected
2.5	0.10	Level at which continuous vibrations begin to annoy people	Virtually no risk of "architectural" damage to normal buildings
5.0	0.20	Vibrations annoying to people in buildings (this agrees with the levels established for people standing on bridges and subjected to relative short periods of vibrations)	Threshold at which there is a risk of "architectural" damage to normal dwelling - houses with plastered walls and ceilings. Special types of finish such as lining of walls, flexible ceiling treatment, etc., would minimize "architectural" damage
10-15	0.4-0.6	Vibrations considered unpleasant by people subjected to continuous vibrations and unacceptable to some people walking on bridges	Vibrations at a greater level than normally expected from traffic, but would cause "architectural" damage and possibly minor structural damage

Source: Transportation Related Earthborne Vibrations. Caltrans. TAV-02-01-R9601. February 20, 2002.

IMPACTS AND MITIGATION MEASURES

THRESHOLDS OF SIGNIFICANCE

Appendix G of the CEQA Guidelines states that a project would normally be considered to result in significant noise impacts if noise levels conflict with adopted environmental standards or plans or if noise generated by the project would substantially increase existing noise levels at sensitive receivers on a permanent or temporary basis. Significance criteria for noise impacts are drawn from CEQA Guidelines Appendix G (Items XI [a-c]).

Would the project:

a. Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

b. Generate excessive groundborne vibration or groundborne noise levels?

c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

Temporary Construction Noise Impacts

With temporary noise impacts (construction), identification of "substantial increases" depends upon the duration of the impact, the temporal daily nature of the impact, and the absolute change in decibel levels. Per the City of Atwater Municipal Code, construction activities operating before 7:00 a.m. or after 7:00 p.m. on Monday through Friday, or before 9:00 a.m. or after 5:00 p.m. on Saturdays and Sundays which create a noise disturbance at the property boundary of a residence are prohibited and would be considered a significant impact.

The City of Atwater and Merced County have not adopted any formal standard for evaluating temporary construction noise which occurs within allowable hours. For short-term noise associated with Project construction, Saxelby Acoustics recommends use of the Caltrans increase criteria of 12 dBA (Caltrans Traffic Noise Protocol, 2020), applied to existing residential receptors in the project vicinity. This level of increase is approximately equivalent to a doubling of sound energy and has been the standard of significance for Caltrans projects at the state level for many years. Application of this standard to construction activities is considered reasonable considering the temporary nature of construction activities.

Noise Level Increase Criteria for Long-Term Project-Related Noise Level Increases

For receptors withing the City of Atwater, the following test of significance would apply, as outlined in Policy NO-2.5 of the City of Atwater General Plan:

a. Where existing traffic noise levels are less than 60 dB L_{dn}, in the outdoor activity areas of noise-sensitive uses, roadway improvement projects which increase noise levels to 60 dB L_{dn} will not be considered significant.

b. Where existing traffic noise levels range between 60 and 65 dB L_{dn} in the outdoor activity areas of noise-sensitive land uses, a +3 dB L_{dn} increase in noise levels due to a roadway improvement project will be considered significant.

c. Where existing traffic noise levels are greater than 65 dB L_{dn} in the outdoor activity areas on noise-sensitive uses, a +1.5 dB L_{dn} increase in noise levels due to a roadway improvement project will be considered significant.

For receptors withing Merced County, the following test of significance would apply, as outlined in Policy HS-7.9 of the Merced County General Plan:

Require transportation project proponents to prepare all acoustical analysis for all roadway and railway construction projects in accordance with Policy HS-7.9; additionally, rail projects

shall require the preparation of a groundborne vibration analysis in accordance with Policy HS-7.9. Consider noise mitigation measures to reduce traffic and/or rail noise levels to comply with Table HS-1 standards if pre-project noise levels already exceed the noise standards of Table HS-1 and the increase is significant. The County defines a significant increase as follows:

Pre-Project Noise Environment (L_{dn})	Significant Increase
Less than 60 dB	5+ dB
60 – 65 dB	3+ dB
Greater than 65 dB	1.5+ dB

PROJECT-SPECIFIC IMPACTS AND MITIGATION MEASURES

Impact 1: ***Would the project generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?***

Traffic Noise Increases at Off-Site Receptors

Based upon the City of Atwater Policy NO-2.5, where existing traffic noise levels are greater than 65 dBA L_{dn}, at the outdoor activity areas of noise-sensitive uses, a +1.5 dBA L_{dn} increase in roadway noise levels will be considered significant. Where traffic noise levels are between 60 dBA L_{dn} and 65 dBA L_{dn}, a +3.0 dB L_{dn} increase in roadway noise levels will be considered significant. Where traffic noise levels are less than 60 dBA $L_{dn,}$ roadway improvement projects which increase noise levels to over 60 dB L_{dn} will be considered significant.

It should be noted that there are noise sensitive receptors adjacent to the proposed project, based upon the Merced County Policy HS-7.9, where existing traffic noise levels are greater than 65 dBA L_{dn}, at the outdoor activity areas of noise-sensitive uses, a +1.5 dBA L_{dn} increase in roadway noise levels will be considered significant. Where traffic noise levels are between 60 dBA L_{dn} and 65 dBA L_{dn}, a +3.0 dB L_{dn} increase in roadway noise levels will be considered significant. Where traffic noise levels are less than 60 dBA $L_{dn,}$ a +5.0 dB L_{dn} increase in roadway

Tables 9-11 list each receptor and whether project-related traffic noise increases constitute a significant impact as defined by the above-listed significance criteria. Where significant impacts are predicted the analysis includes an evaluation of whether the impact can be mitigated through the use of quiet pavement or sound walls.

Quiet pavements overlays are typically assumed to provide a 3 to 5 dBA reduction. Assuming a minimum reduction of 4 dBA, quiet pavement placed along sensitive receptor on the roadway segments predicted to see a significant increase in traffic noise levels could reduce noise level increases to a less than significant level.

TABLE 9: TRAFFIC NOISE IMPACT ASSESSMENT – ALTERNATIVE 1

Receiver ID	Address	Existing	Design Year	Design Year Plus Project	Increase	Criteria	Impact?	Design Year Plus Project – w/ Quiet Pavement			Design Year Plus Project – w/ 6' Sound Wall		
								Change, w/Quiet Pavement	Level w/Quiet Pavement	Impact w/Quiet pavement?	Change, w/ 6' Wall	Level w/ 6' Wall	Impact w/Wall?
R1	4909 Grove Ave, Winton, CA 95388	65.5	65.5	65.7	0.2	+1.5 dBA	No	-3.8	61.7	No	0.2	65.7	No
R2	8470 Olive Ave, Winton, CA 95388	71.6	71.6	71.6	0.0	+1.5 dBA	No	-4.0	67.6	No	0.0	71.6	No
R3	5246 Grove Ave, Winton, CA 95388	62.3	62.3	62.4	0.1	+1.5 dBA	No	-3.9	58.4	No	0.1	62.4	No
R4	4904 Grove Ave, Winton, CA 95388	67.5	67.6	67.7	0.1	+1.5 dBA	No	-3.9	63.7	No	0.1	67.7	No
R5	4966 Grove Ave, Winton, CA 95388	65.7	65.8	66.6	0.8	+1.5 dBA	No	-3.2	62.6	No	0.8	66.6	No
R6	2492 Brodalski St, Atwater, CA 95301	59.1	59.5	61.6	2.1	>60 or +3 dBA	**Yes**	-1.9	57.6	No	-1.0	58.5	No
R7	2921 Mardi Gras Ct, Atwater, CA 95301	58.6	58.7	61.8	3.1	>60 or +3 dBA	**Yes**	-0.9	57.8	No	0.8	59.5	No
R8	2069 Bellevue Rd, Atwater, CA 95301	53.5	53.6	55.0	1.4	>60 or +3 dBA	No	-2.6	51.0	No	1.4	55.0	No
R9	2397 Crestview Dr, Atwater, CA 95301	61.7	61.7	63.8	2.1	+3 dBA	No	-1.9	59.8	No	0.5	62.2	No
R10	2387 Crestview Dr, Atwater, CA 95301	56.8	56.4	62.1	5.7	>60 or +3 dBA	**Yes**	1.7	58.1	No	3.4	59.8	No
R11	2371 Crestview Dr, Atwater, CA 95301	56.4	56.3	62.2	5.9	>60 or +3 dBA	**Yes**	1.9	58.2	No	3.5	59.8	No
R12	2347 Crestview Dr, Atwater, CA 95301	57.6	58.6	64.0	5.4	>60 or +3 dBA	**Yes**	1.4	60.0	No	2.9	61.5	No
R13	2298 Bellevue Rd, Atwater, CA 95301	60.1	61.5	67.0	5.5	+3 dBA	**Yes**	1.5	63.0	No	3.0	64.5	No
R14	2182 Bellevue Rd, Atwater, CA 95301	56.3	56.8	59.6	2.8	>60 or +3 dBA	No	-1.2	55.6	No	2.8	59.6	No
R15	2238 Falcon Ct, Atwater, CA 95301	55.4	55.5	57.4	1.9	>60 or +3 dBA	No	-2.1	53.4	No	1.6	57.1	No
R16	2472 Brodalski St, Atwater, CA 95301	58.9	59.4	63.3	3.9	>60 or +3 dBA	**Yes**	-0.1	59.3	No	-0.9	58.5	No
R17	2422 Brodalski St, Atwater, CA 95301	64.1	62.1	64.8	2.7	+3 dBA	**Yes**	-1.3	60.8	No	-6.3	55.8	No
R18	2920 Virginia St, Atwater, CA 95301	62.2	61.1	64.3	3.2	+3 dBA	**Yes**	-0.8	60.3	No	-3.0	58.1	No

Note: Bold indicates where project-related traffic is predicted to exceed the increase criteria or cause traffic noise levels to exceed the local exterior noise standard.

TABLE 10: TRAFFIC NOISE IMPACT ASSESSMENT – ALTERNATIVE 2

Receiver ID	Address	Existing	Design Year	Design Year Plus Project	Increase	Criteria	Impact?	Design Year Plus Project – w/ Quiet Pavement			Design Year Plus Project – w/ 6' Sound Wall		
								Change, w/Quiet Pavement	Level w/Quiet Pavement	Impact w/Quiet pavement?	Change, w/ 6' Wall	Level w/ 6' Wall	Impact w/Wall?
R1	4909 Grove Ave, Winton, CA 95388	65.5	65.5	65.7	0.2	+1.5 dBA	No	-3.8	61.7	No	0.2	65.7	No
R2	8470 Olive Ave, Winton, CA 95388	71.6	71.6	71.6	0.0	+1.5 dBA	No	-4.0	67.6	No	0.0	71.6	No
R3	5246 Grove Ave, Winton, CA 95388	62.3	62.3	62.4	0.1	+1.5 dBA	No	-3.9	58.4	No	0.1	62.4	No
R4	4904 Grove Ave, Winton, CA 95388	67.5	67.6	67.7	0.1	+1.5 dBA	No	-3.9	63.7	No	0.1	67.7	No
R5	4966 Grove Ave, Winton, CA 95388	65.7	65.8	66.6	0.8	+1.5 dBA	No	-3.2	62.6	No	0.8	66.6	No
R6	2492 Brodalski St, Atwater, CA 95301	59.1	59.5	67.5	8.0	>60 or +3 dBA	**Yes**	4.0	63.5	**Yes**	2.5	62.0	No
R7	2921 Mardi Gras Ct, Atwater, CA 95301	58.6	58.7	62.2	3.5	>60 or +3 dBA	**Yes**	-0.5	58.2	No	1.0	59.7	No
R8	2069 Bellevue Rd, Atwater, CA 95301	53.5	53.6	55.1	1.5	>60 or +3 dBA	No	-2.5	51.1	No	1.4	55.0	No
R9	2397 Crestview Dr, Atwater, CA 95301	61.7	61.7	62.5	0.8	+3 dBA	No	-3.2	58.5	No	-0.3	61.4	No
R10	2387 Crestview Dr, Atwater, CA 95301	56.8	56.4	59.8	3.4	>60 or +3 dBA	**Yes**	-0.6	55.8	No	1.9	58.3	No
R11	2371 Crestview Dr, Atwater, CA 95301	56.4	56.3	61.0	4.7	>60 or +3 dBA	**Yes**	0.7	57.0	No	2.8	59.1	No
R12	2347 Crestview Dr, Atwater, CA 95301	57.6	58.6	63.2	4.6	>60 or +3 dBA	**Yes**	0.6	59.2	No	2.3	60.9	No
R13	2298 Bellevue Rd, Atwater, CA 95301	60.1	61.5	65.5	4.0	+3 dBA	**Yes**	0.0	61.5	No	1.9	63.4	No
R14	2182 Bellevue Rd, Atwater, CA 95301	56.3	56.8	59.1	2.3	>60 or +3 dBA	No	-1.7	55.1	No	2.3	59.1	No
R15	2238 Falcon Ct, Atwater, CA 95301	55.4	55.5	57.5	2.0	>60 or +3 dBA	No	-2.0	53.5	No	1.7	57.2	No
R16	2472 Brodalski St, Atwater, CA 95301	58.9	59.4	67.9	8.5	>60 or +3 dBA	**Yes**	4.5	63.9	**Yes**	2.1	61.5	No
R17	2422 Brodalski St, Atwater, CA 95301	64.1	62.1	67.1	5.0	+3 dBA	**Yes**	1.0	63.1	No	-4.3	57.8	No
R18	2920 Virginia St, Atwater, CA 95301	62.2	61.1	65.8	4.7	+3 dBA	**Yes**	0.7	61.8	No	-1.8	59.3	No

Note: Bold indicates where project-related traffic is predicted to exceed the increase criteria or cause traffic noise levels to exceed the local exterior noise standard.

TABLE 11: TRAFFIC NOISE IMPACT ASSESSMENT – ALTERNATIVE 3

Receiver ID	Address	Existing	Design Year	Design Year Plus Project	Increase	Criteria	Impact?	Design Year Plus Project – w/ Quiet Pavement			Design Year Plus Project – w/ 6' Sound Wall		
								Change, w/Quiet Pavement	Level w/Quiet Pavement	Impact w/Quiet pavement?	Change, w/ 6' Wall	Level w/ 6' Wall	Impact w/Wall?
R1	4909 Grove Ave, Winton, CA 95388	65.5	65.5	65.7	0.2	+1.5 dBA	No	-3.8	61.7	No	0.2	65.7	No
R2	8470 Olive Ave, Winton, CA 95388	71.6	71.6	71.6	0.0	+1.5 dBA	No	-4.0	67.6	No	0.0	71.6	No
R3	5246 Grove Ave, Winton, CA 95388	62.3	62.3	62.4	0.1	+1.5 dBA	No	-3.9	58.4	No	0.1	62.4	No
R4	4904 Grove Ave, Winton, CA 95388	67.5	67.6	67.7	0.1	+1.5 dBA	No	-3.9	63.7	No	0.1	67.7	No
R5	4966 Grove Ave, Winton, CA 95388	65.7	65.8	66.6	0.8	+1.5 dBA	No	-3.2	62.6	No	0.8	66.6	No
R6	2492 Brodalski St, Atwater, CA 95301	59.1	59.5	67.3	7.8	>60 or +3 dBA	**Yes**	3.8	63.3	**Yes**	2.4	61.9	No
R7	2921 Mardi Gras Ct, Atwater, CA 95301	58.6	58.7	62.2	3.5	>60 or +3 dBA	**Yes**	-0.5	58.2	No	1.0	59.7	No
R8	2069 Bellevue Rd, Atwater, CA 95301	53.5	53.6	55.1	1.5	>60 or +3 dBA	No	-2.5	51.1	No	1.4	55.0	No
R9	2397 Crestview Dr, Atwater, CA 95301	61.7	61.7	62.5	0.8	+3 dBA	No	-3.2	58.5	No	-0.2	61.5	No
R10	2387 Crestview Dr, Atwater, CA 95301	56.8	56.4	59.8	3.4	>60 or +3 dBA	**Yes**	-0.6	55.8	No	1.9	58.3	No
R11	2371 Crestview Dr, Atwater, CA 95301	56.4	56.3	61.0	4.7	>60 or +3 dBA	**Yes**	0.7	57.0	No	3.1	59.4	No
R12	2347 Crestview Dr, Atwater, CA 95301	57.6	58.6	63.2	4.6	>60 or +3 dBA	**Yes**	0.6	59.2	No	2.3	60.9	No
R13	2298 Bellevue Rd, Atwater, CA 95301	60.1	61.5	65.5	4.0	+3 dBA	**Yes**	0.0	61.5	No	1.9	63.4	No
R14	2182 Bellevue Rd, Atwater, CA 95301	56.3	56.8	59.1	2.3	>60 or +3 dBA	No	-1.7	55.1	No	2.3	59.1	No
R15	2238 Falcon Ct, Atwater, CA 95301	55.4	55.5	57.5	2.0	>60 or +3 dBA	No	-2.0	53.5	No	1.7	57.2	No
R16	2472 Brodalski St, Atwater, CA 95301	58.9	59.4	67.8	8.4	>60 or +3 dBA	**Yes**	4.4	63.8	**Yes**	2.0	61.4	No
R17	2422 Brodalski St, Atwater, CA 95301	64.1	62.1	67.1	5.0	+3 dBA	**Yes**	1.0	63.1	No	-4.3	57.8	No
R18	2920 Virginia St, Atwater, CA 95301	62.2	61.1	65.8	4.7	+3 dBA	**Yes**	0.7	61.8	No	-1.8	59.3	No

Note: Bold indicates where project-related traffic is predicted to exceed the increase criteria or cause traffic noise levels to exceed the local exterior noise standard.

Based upon **Table 9**, development of Alternative 1 would result in significant traffic noise increases at nine noise sensitive receptor locations. These noise increases could be mitigated throught the use of quiet pavement or construction of 6-foot tall sound walls along the effected senstive receptors.

Based upon **Table 10**, development of Alternative 2 would result in significant traffic noise increases at nine noise sensitivereceptor locations. These noise increases could be partially mitigated throught the use of quiet pavement. However, not all locations would be fully mitigated through use of quiet pavement. Therefore, construction of 6-foot tall sound walls would be requires along some or all of the effected senstive receptors.

Based upon **Table 11**, development of Alternative 3 would result in significant traffic noise increases at nine noise sensitivereceptor locations. These noise increases could be partially mitigated throught the use of quiet pavement. However, not all locations would be fully mitigated through use of quiet pavement. Therefore, construction of 6-foot tall sound walls would be requires along some or all of the effected senstive receptors.

Construction Noise

During the construction phases of the project, noise from construction activities would add to the noise environment in the immediate project vicinity. As indicated in **Table 4,** activities involved in construction would generate maximum noise levels ranging from 76 to 90 dBA L_{max} at a distance of 50 feet. Construction activities would also be temporary in nature and are anticipated to occur during normal daytime working hours. The City of Atwater Municipal Code exempts construction noise from the noise ordinance provided that activities do not occur before 7:00 a.m. or after 7:00 p.m. on Monday to Friday or before 9:00 a.m. or after 5:00 p.m. on Saturdays and Sundays.

As shown in **Table 4**, construction equipment is predicted to generate noise levels of up to 90 dBA L_{max} at a distance of 50 feet. Roadway construction, including sound wall construction activity could occur as close as approximately 25 feet of existing noise-sensitive receptors. At this distance, construction noise would be expected to range between 82 to 96 dBA L_{max}. Based upon noise measurements collected at site LT-1, existing maximum daytime noise levels ranged from 63-85 dBA L_{max}, a potential increase of 11 dBA. Therefore, project construction would not cause an increase of greater than 12 dBA over existing ambient noise levels.

Although construction activities are temporary in nature and would occur during normal daytime working hours, construction-related noise could result in sleep interference at existing noise-sensitive land uses in the vicinity of the construction if construction activities were to occur outside the normal daytime hours. Therefore, impacts resulting from noise levels temporarily exceeding the threshold of significance due to construction would be considered ***potentially significant***. Mitigation measure 1(b) would help ensure that construction noise impacts remain ***less-than-significant***.

Mitigation Measures

1(a) For Alternative 1, quiet pavement should be installed for Bellevue Road along existing sensitive receptors to mitigate the traffic noise increases. In lieu of quiet pavement, minimum 6-foot-tall sound walls should be constructed along the residential uses located north and south of Bellevue Road along the realigned roadway. For Alternatives 2 and 3, minimum 6-foot-tall sound walls should be constructed along the residential uses located north and south of Bellevue Road along the

realigned roadway. **Figure 6** shows the location of the sound walls. Sound walls should be of masonry type construction.

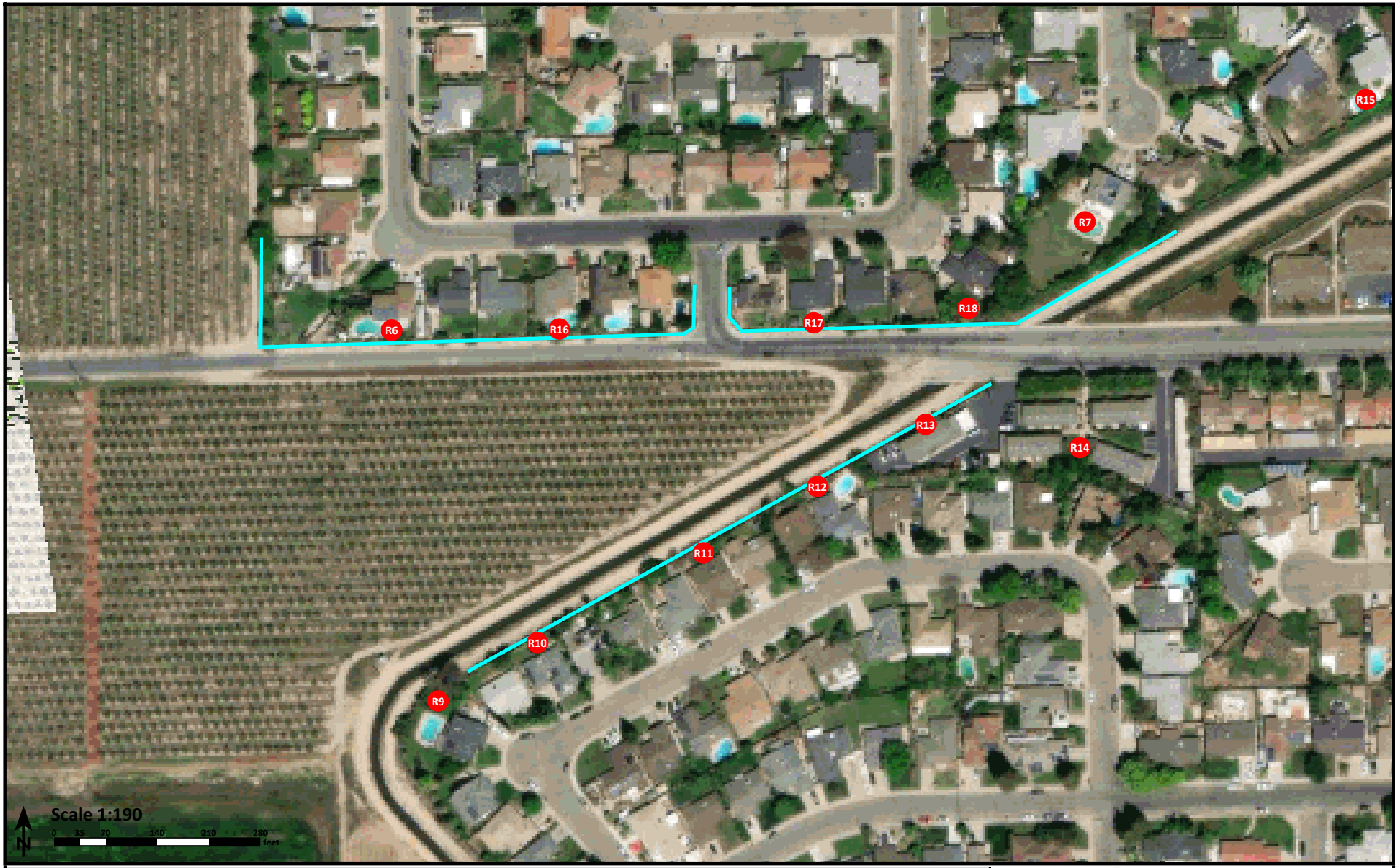
1(b) The City shall establish the following as conditions of approval for any permit that results in the use of construction equipment:

- Construction shall be limited to between 7:00 a.m. to 7:00 p.m. on Monday to Friday and between 9:00 a.m. to 5:00 p.m. on Saturdays and Sundays projects within the City of Atwater.
- All construction equipment powered by internal combustion engines shall be properly muffled and maintained.
- Quiet construction equipment, particularly air compressors, are to be selected whenever possible.
- All stationary noise-generating construction equipment such as generators or air compressors are to be located as far as is practical from existing residences. In addition, the project contractor shall place such stationary construction equipment so that emitted noise is directed away from sensitive receptors nearest the project site.
- Unnecessary idling of internal combustion engines is prohibited.
- The construction contractor shall, to the maximum extent practical, locate on-site equipment staging areas to maximize the distance between construction-related noise sources and noise-sensitive receptors nearest the project site during all project construction.

Timing/Implementation: Implemented prior to approval of grading and/or building permits
Enforcement/Monitoring: City of Atwater Community Development Services Department

Implementation of mitigation measures 1(a) would reduce traffic-generated noise level increases associated with the project to a ***less than significant*** level.

Implementation of mitigation measures 1(b) would help construction noise to remain ***less than significant*** level.



Bellevue Realignment Reconstruction

City of Atwater, CA

Figure 6
Recommened Sound Wall Locations

Legend

6-Foot Sound Wall

3 Outdoor Area Noise Level

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Impact 2: ***Would the project generate excessive groundborne vibration or groundborne noise levels?***

Construction vibration impacts include human annoyance and building structural damage. Human annoyance occurs when construction vibration rises significantly above the threshold of perception. Building damage can take the form of cosmetic or structural.

The **Table 5** data indicate that construction vibration levels anticipated for the project are less than the 0.2 in/sec threshold at distances of 26 feet. Sensitive receptors which could be impacted by construction related vibrations, especially vibratory compactors/rollers, are located further than 26 feet from typical on-site construction activities. At distances greater than 26 feet construction vibrations are not predicted to exceed acceptable levels. Additionally, construction activities would be temporary in nature and would likely occur during normal daytime working hours. However, off-site improvements could occur in close proximity to sensitive receptors. Because the exact location of construction is unknown at this time, this is considered a ***potentially significant*** impact.

Mitigation Measures

2 If use of vibratory compactors are required within 25 feet, or less, of a residential structure, pre-construction crack documentation and construction vibration monitoring shall be conducted to ensure that construction vibrations do not cause damage to any adjacent structures. Alternatively, use of hand compaction equipment could be employed to minimize ground vibrations.

Implementation of mitigation measures 2 would reduce groundborne vibration levels to a ***less than significant*** level.

Impact 3: ***For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?***

There are no airports within two miles of the project vicinity. Therefore, this impact is not applicable to the proposed project.

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Appendix A: Acoustical Terminology

Acoustics	The science of sound.
Ambient Noise	The distinctive acoustical characteristics of a given space consisting of all noise sources audible at that location. In many cases, the term ambient is used to describe an existing or pre-project condition such as the setting in an environmental noise study.
ASTC	Apparent Sound Transmission Class. Similar to STC but includes sound from flanking paths and correct for room reverberation. A larger number means more attenuation. The scale, like the decibel scale for sound, is logarithmic.
Attenuation	The reduction of an acoustic signal.
A-Weighting	A frequency-response adjustment of a sound level meter that conditions the output signal to approximate human response.
Decibel or dB	Fundamental unit of sound, A Bell is defined as the logarithm of the ratio of the sound pressure squared over the reference pressure squared. A Decibel is one-tenth of a Bell.
CNEL	Community Noise Equivalent Level. Defined as the 24-hour average noise level with noise occurring during evening hours (7 - 10 p.m.) weighted by +5 dBA and nighttime hours weighted by +10 dBA.
DNL	See definition of Ldn.
IIC	Impact Insulation Class. An integer-number rating of how well a building floor attenuates impact sounds, such as footsteps. A larger number means more attenuation. The scale, like the decibel scale for sound, is logarithmic.
Frequency	The measure of the rapidity of alterations of a periodic signal, expressed in cycles per second or hertz (Hz).
Ldn	Day/Night Average Sound Level. Similar to CNEL but with no evening weighting.
Leq	Equivalent or energy-averaged sound level.
Lmax	The highest root-mean-square (RMS) sound level measured over a given period of time.
L(n)	The sound level exceeded a described percentile over a measurement period. For instance, an hourly L50 is the sound level exceeded 50% of the time during the one-hour period.
Loudness	A subjective term for the sensation of the magnitude of sound.
NIC	Noise Isolation Class. A rating of the noise reduction between two spaces. Similar to STC but includes sound from flanking paths and no correction for room reverberation.
NNIC	Normalized Noise Isolation Class. Similar to NIC but includes a correction for room reverberation.
Noise	Unwanted sound.
NRC	Noise Reduction Coefficient. NRC is a single-number rating of the sound-absorption of a material equal to the arithmetic mean of the sound-absorption coefficients in the 250, 500, 1000, and 2,000 Hz octave frequency bands rounded to the nearest multiple of 0.05. It is a representation of the amount of sound energy absorbed upon striking a particular surface. An NRC of 0 indicates perfect reflection; an NRC of 1 indicates perfect absorption.
RT60	The time it takes reverberant sound to decay by 60 dB once the source has been removed.
Sabin	The unit of sound absorption. One square foot of material absorbing 100% of incident sound has an absorption of 1 Sabin.
SEL	Sound Exposure Level. SEL is a rating, in decibels, of a discrete event, such as an aircraft flyover or train pass by, that compresses the total sound energy into a one-second event.
SPC	Speech Privacy Class. SPC is a method of rating speech privacy in buildings. It is designed to measure the degree of speech privacy provided by a closed room, indicating the degree to which conversations occurring within are kept private from listeners outside the room.
STC	Sound Transmission Class. STC is an integer rating of how well a building partition attenuates airborne sound. It is widely used to rate interior partitions, ceilings/floors, doors, windows and exterior wall configurations. The STC rating is typically used to rate the sound transmission of a specific building element when tested in laboratory conditions where flanking paths around the assembly don't exist. A larger number means more attenuation. The scale, like the decibel scale for sound, is logarithmic.
Threshold of Hearing	The lowest sound that can be perceived by the human auditory system, generally considered to be 0 dB for persons with perfect hearing.
Threshold of Pain	Approximately 120 dB above the threshold of hearing.
Impulsive	Sound of short duration, usually less than one second, with an abrupt onset and rapid decay.
Simple Tone	Any sound which can be judged as audible as a single pitch or set of single pitches.

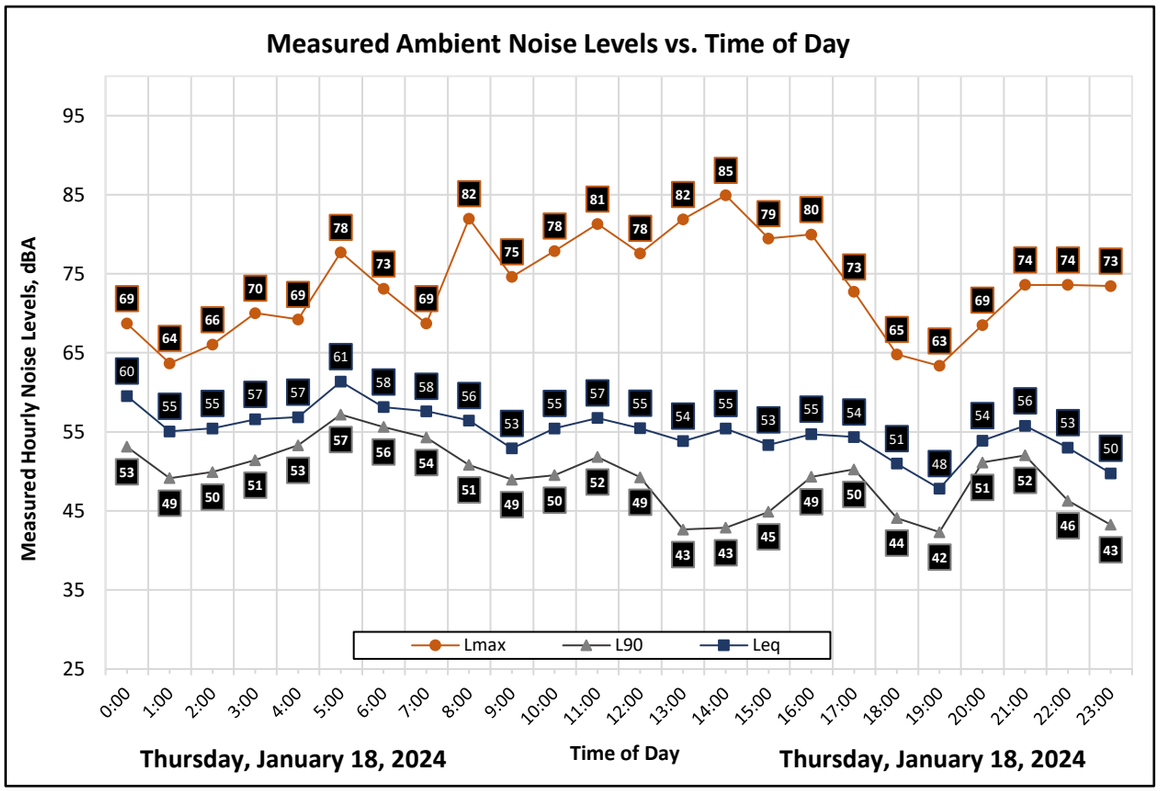
Appendix B: Ambient Noise Measurement Results

Appendix B1: Continuous Noise Monitoring Results

Site: LT-1
Project: Bellevue Realignment Reconcstrucion
Meter: LDL 820-5
Location: North of Bellevue Road
Calibrator: CAL200
Coordinates: (37.3605400, -120.6221322)

Date	Time	Measured Level, dBA			
		L_{eq}	L_{max}	L_{50}	L_{90}
Thursday, January 18, 2024	0:00	60	69	58	53
Thursday, January 18, 2024	1:00	55	64	54	49
Thursday, January 18, 2024	2:00	55	66	54	50
Thursday, January 18, 2024	3:00	57	70	55	51
Thursday, January 18, 2024	4:00	57	69	56	53
Thursday, January 18, 2024	5:00	61	78	61	57
Thursday, January 18, 2024	6:00	58	73	57	56
Thursday, January 18, 2024	7:00	58	69	57	54
Thursday, January 18, 2024	8:00	56	82	53	51
Thursday, January 18, 2024	9:00	53	75	50	49
Thursday, January 18, 2024	10:00	55	78	52	50
Thursday, January 18, 2024	11:00	57	81	54	52
Thursday, January 18, 2024	12:00	55	78	53	49
Thursday, January 18, 2024	13:00	54	82	45	43
Thursday, January 18, 2024	14:00	55	85	45	43
Thursday, January 18, 2024	15:00	53	79	50	45
Thursday, January 18, 2024	16:00	55	80	52	49
Thursday, January 18, 2024	17:00	54	73	52	50
Thursday, January 18, 2024	18:00	51	65	49	44
Thursday, January 18, 2024	19:00	48	63	46	42
Thursday, January 18, 2024	20:00	54	69	53	51
Thursday, January 18, 2024	21:00	56	74	55	52
Thursday, January 18, 2024	22:00	53	74	51	46
Thursday, January 18, 2024	23:00	50	73	46	43

Statistics	Leq	Lmax	L50	L90
Day Average	55	75	51	48
Night Average	58	71	55	51
Day Low	48	63	45	42
Day High	58	85	57	54
Night Low	50	64	46	43
Night High	61	78	61	57
Ldn	63	Day %		50
CNEL	63	Night %		50

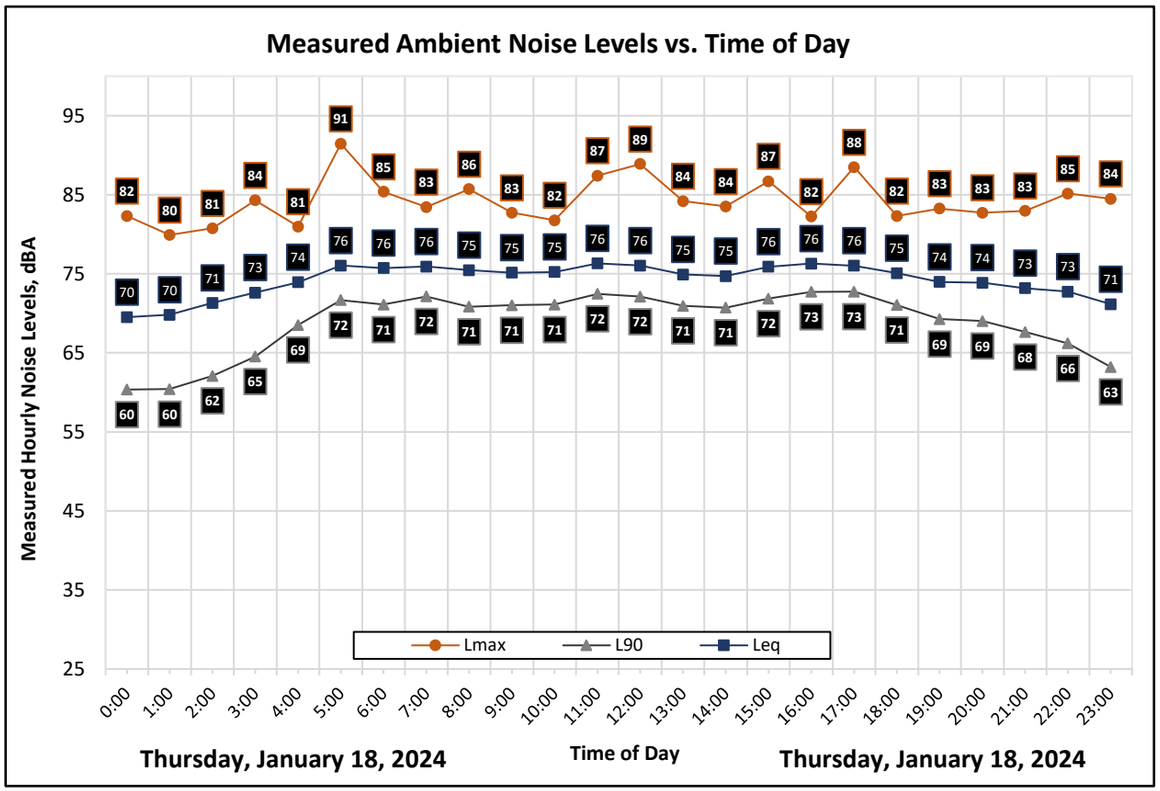


Appendix B2: Continuous Noise Monitoring Results

Site: LT-2
Project: Bellevue Realignment Reconcstrucion
Meter: LDL 820-1
Location: North of SR 99
Calibrator: CAL200
Coordinates: (37.3572807, -120.6383190)

Date	Time	Measured Level, dBA			
		L_{eq}	L_{max}	L_{50}	L_{90}
Thursday, January 18, 2024	0:00	70	82	67	60
Thursday, January 18, 2024	1:00	70	80	67	60
Thursday, January 18, 2024	2:00	71	81	69	62
Thursday, January 18, 2024	3:00	73	84	71	65
Thursday, January 18, 2024	4:00	74	81	73	69
Thursday, January 18, 2024	5:00	76	91	75	72
Thursday, January 18, 2024	6:00	76	85	75	71
Thursday, January 18, 2024	7:00	76	83	76	72
Thursday, January 18, 2024	8:00	75	86	75	71
Thursday, January 18, 2024	9:00	75	83	75	71
Thursday, January 18, 2024	10:00	75	82	75	71
Thursday, January 18, 2024	11:00	76	87	76	72
Thursday, January 18, 2024	12:00	76	89	76	72
Thursday, January 18, 2024	13:00	75	84	74	71
Thursday, January 18, 2024	14:00	75	84	74	71
Thursday, January 18, 2024	15:00	76	87	75	72
Thursday, January 18, 2024	16:00	76	82	76	73
Thursday, January 18, 2024	17:00	76	88	76	73
Thursday, January 18, 2024	18:00	75	82	75	71
Thursday, January 18, 2024	19:00	74	83	73	69
Thursday, January 18, 2024	20:00	74	83	73	69
Thursday, January 18, 2024	21:00	73	83	72	68
Thursday, January 18, 2024	22:00	73	85	72	66
Thursday, January 18, 2024	23:00	71	84	70	63

Statistics	Leq	Lmax	L50	L90
Day Average	75	84	75	71
Night Average	73	84	71	65
Day Low	73	82	72	68
Day High	76	89	76	73
Night Low	70	80	67	60
Night High	76	91	75	72
Ldn	80	Day %		75
CNEL	80	Night %		25

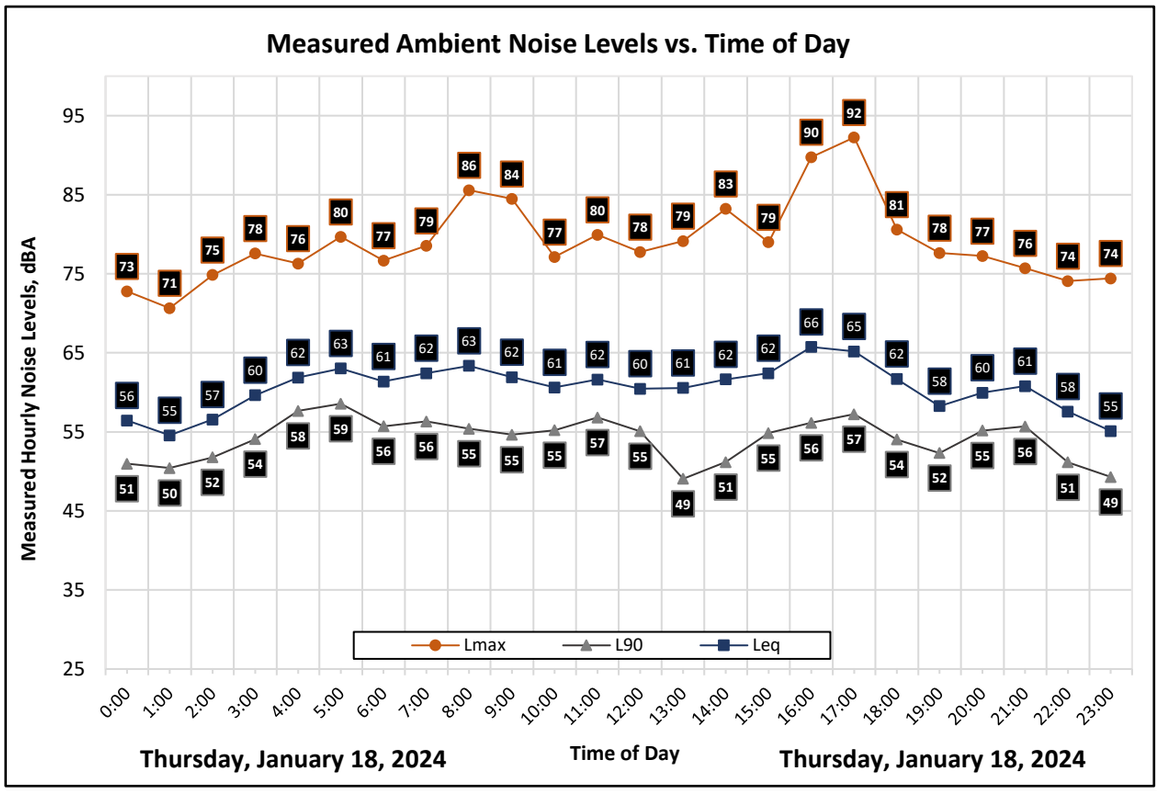


Appendix B3: Continuous Noise Monitoring Results

Site: LT-3
Project: Bellevue Realignment Reconcstrucion
Meter: LDL 820-3
Location: North of Bellevue Road
Calibrator: CAL200
Coordinates: (37.3609562, -120.6411447)

Date	Time	Measured Level, dBA			
		L_{eq}	L_{max}	L_{50}	L_{90}
Thursday, January 18, 2024	0:00	56	73	55	51
Thursday, January 18, 2024	1:00	55	71	54	50
Thursday, January 18, 2024	2:00	57	75	55	52
Thursday, January 18, 2024	3:00	60	78	57	54
Thursday, January 18, 2024	4:00	62	76	61	58
Thursday, January 18, 2024	5:00	63	80	61	59
Thursday, January 18, 2024	6:00	61	77	58	56
Thursday, January 18, 2024	7:00	62	79	59	56
Thursday, January 18, 2024	8:00	63	86	58	55
Thursday, January 18, 2024	9:00	62	84	57	55
Thursday, January 18, 2024	10:00	61	77	58	55
Thursday, January 18, 2024	11:00	62	80	59	57
Thursday, January 18, 2024	12:00	60	78	58	55
Thursday, January 18, 2024	13:00	61	79	53	49
Thursday, January 18, 2024	14:00	62	83	55	51
Thursday, January 18, 2024	15:00	62	79	58	55
Thursday, January 18, 2024	16:00	66	90	59	56
Thursday, January 18, 2024	17:00	65	92	60	57
Thursday, January 18, 2024	18:00	62	81	58	54
Thursday, January 18, 2024	19:00	58	78	55	52
Thursday, January 18, 2024	20:00	60	77	58	55
Thursday, January 18, 2024	21:00	61	76	59	56
Thursday, January 18, 2024	22:00	58	74	55	51
Thursday, January 18, 2024	23:00	55	74	53	49

Statistics	Leq	Lmax	L50	L90
Day Average	62	81	58	55
Night Average	60	75	57	53
Day Low	58	76	53	49
Day High	66	92	60	57
Night Low	55	71	53	49
Night High	63	80	61	59
Ldn	66	Day %		77
CNEL	66	Night %		23



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Appendix C: Traffic Noise Calculation Inputs and Results

Appendix C-1

FHWA-RD-77-108 Highway Traffic Noise Prediction Model

Project #: 211206
Description: Existing Traffic
Ldn/CNEL: Ldn
Hard/Soft: Soft

Segment	Roadway	Segment	ADT	Day %	Eve %	Night %	% Med. Trucks	% Hvy. Trucks	Speed	Distance	Offset (dB)	Contours (ft.) - No Offset 60 dBA	65 dBA	70 dBA	Level, dBA
1	Grove Avenue	North of Bellevue	800	76	0	24	1.0%	1.0%	45	50	0	33	15	7	57.4
2	Bellevue Road	East of Grove Ave	1,830	76	0	24	1.0%	1.0%	45	50	0	58	27	12	61.0
3	Bellevue Road	East of Vine Ave	40	76	0	24	1.0%	1.0%	45	50	0	5	2	1	44.4
4	Bellevue Road	West of N Winton Way	2,010	76	0	24	1.0%	1.0%	45	50	0	62	29	13	61.4
5	Vine Ave	North of Bellevue	1,720	76	0	24	1.0%	1.0%	45	50	0	56	26	12	60.7

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Appendix C-2

FHWA-RD-77-108 Highway Traffic Noise Prediction Model

Project #: 211206
Description: Design Year
Ldn/CNEL: Ldn
Hard/Soft: Soft

Segment	Roadway	Segment	ADT	Day %	Eve %	Night %	% Med. Trucks	% Hvy. Trucks	Speed	Distance	Offset (dB)	Contours (ft.) - No Offset 60 dBA	65 dBA	70 dBA	Level, dBA
1	Grove Avenue	North of Bellevue	1,200	76	0	24	1.0%	1.0%	45	50	0	44	20	9	59.1
2	Bellevue Road	East of Grove Ave	2,600	76	0	24	1.0%	1.0%	45	50	0	73	34	16	62.5
3	Bellevue Road	East of Vine Ave	200	76	0	24	1.0%	1.0%	45	50	0	13	6	3	51.3
4	Bellevue Road	West of N Winton Way	3,000	76	0	24	1.0%	1.0%	45	50	0	80	37	17	63.1
5	Vine Ave	North of Bellevue	2,300	76	0	24	1.0%	1.0%	45	50	0	67	31	15	61.9

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Appendix C-3

FHWA-RD-77-108 Highway Traffic Noise Prediction Model

Project #: 211206
Description: Design Year Plus Project
Ldn/CNEL: Ldn
Hard/Soft: Soft

Segment	Roadway	Segment	ADT	Day %	Eve %	Night %	% Med. Trucks	% Hvy. Trucks	Speed	Distance	Offset (dB)	Contours (ft.) - No Offset 60 dBA	65 dBA	70 dBA	Level, dBA
1	Grove Avenue	North of Bellevue	800	76	0	24	1.0%	3.0%	45	50	0	39	18	9	58.5
2	Bellevue Road	East of Grove Ave	7,100	76	0	24	1.0%	3.0%	45	50	0	169	79	36	67.9
3	Bellevue Road	East of Vine Ave	5,500	76	0	24	1.0%	3.0%	45	50	0	143	66	31	66.8
4	Bellevue Road	West of N Winton Way	5,800	76	0	24	1.0%	3.0%	45	50	0	148	69	32	67.1
5	Vine Ave	North of Bellevue	1,500	76	0	24	1.0%	3.0%	45	50	0	60	28	13	61.2

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APPENDIX C: VEHICLE MILES TRAVELED ANALYSIS

FEHR PEERS

Draft Memorandum

Date: February 16, 2024

To: Steve McMurtry, De Novo Planning Group

From: Ron Ramos, PE and Nahal Hakim, Fehr & Peers

Subject: Bellevue Road Reconstruction/Realignment – CEQA VMT Analysis

WC24-4056

Fehr & Peers completed a Vehicle Miles Traveled (VMT) analysis to support the Bellevue Road Reconstruction/Realignment (Project) in the City of Atwater, California. The analysis indicates that the project results in a reduction in VMT. This memorandum provides a brief introduction to the project and background information, a summary of the model enhancement and forecast, and the VMT analysis results.

Introduction and Background

Within the project area, Bellevue Road is designated as a Major Collector on the California Roadway System Map and categorized as a Four-Lane Urban Major Arterial in the City of Atwater General Plan. Because Bellevue Road is currently closed to traffic within the developed section of the Dole Packaged Foods campus, drivers must take lengthy detours on local roads, resulting in additional VMT. Drivers traveling from/to the north side of the City of Bellevue to the SR 99/Westside Boulevard are the most affected by the road closure. The project aims to realign and reconstruct a segment of Bellevue Road between Grove Avenue and Parade Street, located adjacent to the City of Atwater city limits. As a result, the project would enhance regional mobility for both goods and people along a significant roadway, reducing total VMT.

The study adopted the Three-County Travel Demand Model (TCTDM) Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) Air Quality Conformity Model. Although the Merced County Association of Governments (MCAG) Model was initially considered, it was not selected because of the lack of daily roadway data for validation purposes. In addition, the current MCAG model version doesn't include the AM and PM peak hour traffic which is the available data to enhance the model in the study area. The efforts to enhance the travel demand model were extended to both future No Build (Bellevue Road remains unconnected) and Build (Bellevue Road connected) scenarios. An analysis of boundary VMT was performed, comparing the No Build and

Build scenarios to assess the impact of Bellevue Road Reconstruction/ Realignment on VMT. Boundary VMT was further stratified by speed bin, which is needed to evaluate emissions for California Environmental Quality Act (CEQA) air quality and CEQA greenhouse gas (GHG) analyses.

TCTDM Model Base Year Enhancement

Model enhancement, with a specific focus on the study area, was conducted to demonstrate the model's capacity to accurately predict future traffic volume and subsequent VMT. Fehr & Peers has been working on different versions of the TCTDM model making improvements over different projects such as SR 59 in Merced, CA. The most recent effort was on the Caltrans approved base year of the TCTDM for the Los Banos Pioneer Road Widening PA&ED (includes the improvements on SR 59 corridor), encompassing San Joaquin, Stanislaus, and Merced Counties, was adopted for this study. The model's base year network includes Bellevue Road connected despite its current closure to traffic within the Dole Packaged Foods campus. Therefore, as the initial step, the network was updated by removing the unconnected section of Bellevue Road and rerunning it. In this study, the term "As-Received" refers to the Los Banos Pioneer Road Widening PA&ED with Bellevue Road disconnected model. The As-Received model was further adjusted to improve statistical validation for the Bellevue Road study area.

In order to evaluate the travel model's performance in replicating existing conditions, the TCTDM As-Received base year results were compared to the static travel model validation thresholds from the 2017 California Regional Transportation Plan (RTP) Guidelines published by the California Transportation Commission as follows:

- Model/Count Ratio: while there is no specified threshold for this metric, Fehr & Peers uses a threshold of "Within +/-10%" of the sum of all locations
- Correlation Coefficient: greater than 0.88
- Percent Root Mean Square Error (RMSE): less than 40%
- Link Volumes within the Allowed Deviation Limits: at least 75%

This study aims to significantly improve model performance across the four metrics through three rounds of model enhancement. It is outside the scope of work of this analysis to fully validate the model to Caltrans standards. The As-Received base year model is compared with existing traffic demand during the one-hour AM peak and PM peak, and the enhancement statistics are shown in **Table 1**.

Table 1: Base Year Model Enhancement Results

2017 California Regional Transportation Plan Guidelines Model Validation Standards					
		"As-Received"		Post-Adjustment	
Metrics	Threshold	AM Peak Period	PM Peak Period	AM Peak Period	PM Peak Period
Volume-to-Count Ratio (Sum of All Locations) [1]	Within 10%	-51%	-38%	-28%	**-9%**
Percent Links within Caltrans Deviation Allowance [2]	At Least 75%	29%	29%	**79%**	**83%**
Percent Root Mean Square Error (RMSE) [2]	Below 40%	60%	59%	61%	57%
Correlation Coefficient	At Least 0.88	**0.92**	**0.86**	0.73	0.77
Number of Locations		24	24	24	24

Notes:
Bold indicates criteria was met.

1. Although no specific threshold is specified, Fehr & Peers uses a threshold of "Within +/-10%" of the sum of all locations.
2. Static Validation Criteria and Thresholds, *2017 California Regional Transportation Plan Guidelines*, California Transportation Commission.

Source: 2017 *California Regional Transportation Plan Guidelines,* and Fehr & Peers 2024.

The As-Received metrics suggest the model is not replicating traffic conditions in the study area. Therefore, three iterations were conducted to improve model performance within the study area. The enhancement process for each iteration is as follows:

- Iteration 1:
  The configuration of the SR 99/Westside Boulevard interchange was modified by removing an additional link within the interchange and eliminating the connection of Central Avenue between the north and south sections of the interchange.
- Iteration 2
  The east leg of Fruitland Avenue and Grove Avenue was added.
- Iteration 3
  Speed limits along Liberty Avenue were adjusted to reflect the existing conditions more accurately on this corridor.

The enhancement process has resulted in substantial improvement in the model's performance in terms of static validation criteria. The peak hour volume to count ratio increased from 0.49 to 0.72 during the AM period and from 0.68 to 0.91 during the PM period. Additionally, the final calibrated model now has over 75% of the links meeting the Caltrans Deviation Allowance target for both AM and PM. The calibrated model exhibits better RMSE and Correlation Coefficient

results for both AM and PM. Therefore, the results indicate that the enhanced model is a better fit than the As-Received model.

TCTDM Model Future Traffic Forecasts

The TCTDM 2045 future year scenario for the Los Banos Pioneer Road Widening PA&ED was also adopted for this study. The adjustments made during the base year enhancement were applied to the 2045 model to maintain consistency. Bellevue Road was upgraded to a four-lane urban major arterial to conform with the City of Atwater General Plan. The future model was run for two scenarios:

1. 2045 No Build: Bellevue Road disconnected to the east and west of the Dole Packaged Foods campus.
2. 2045 Build: Bellevue Road connected to the east and west of the Dole Packaged Foods campus.

The future traffic difference and traffic patterns between the two scenarios were reviewed for reasonableness, and the findings were summarized for the VMT calculations outlined in the next section.

CEQA Vehicle-Miles Traveled Analysis

Senate Bill (SB) 743 (Steinberg, 2013) instructed the California Governor's Office of Planning and Research (OPR) to update CEQA Guidelines to remove congestion-based analysis (such as level of service analysis) from CEQA Transportation analysis, and to install a new metric. The intent of SB 743 was to encourage infill development, promote healthier communities through active transportation (e.g., walking and bicycling), and align CEQA transportation analysis to aid California in meeting greenhouse gas reduction targets set by other pieces of legislation (i.e., AB 32). Ultimately, SB 743 has shifted CEQA transportation analysis from measuring the effects of a project on drivers, to measuring the environmental effects of driving generated by a project. Adopted in December 2018, Section 15064.3 of the CEQA Guidelines notes that VMT is the most appropriate metric for the analysis of impacts in the transportation section of CEQA analysis.

To understand the VMT impact of connecting Bellevue Road, the following metrics were developed:

- **Project's Effect on Daily VMT (Boundary VMT):** The sum of VMT associated with all the links within certain boundaries (links volumes multiplied by link distance in miles).
- **Project's Effect on VMT (Boundary VMT) by Speed Bin and by Time Period:** An evaluation of the change in total vehicle travel within certain boundaries and per 5 mph interval speed bins, compared between Build and No Build scenarios. Boundary VMT by

speed bin is needed to evaluate emissions for CEQA air quality and CEQA greenhouse gas (GHG) analyses.

Three boundaries were defined to summarize the VMT analysis, as shown in **Attachment A**. The first two VMT boundaries of City of Atwater and the Atwater Sphere of Influence, are based on the political jurisdictions, and may not fully capture the effects on VMT, particularly when considering how traffic flows across different areas. To address this limitation and ensure a more comprehensive assessment, we have introduced a third boundary, which we refer to as the "Expanded Impact Boundary." This boundary extends beyond the city limits of Atwater to include neighboring communities such as Livingston and Winton. By doing so, we aim to encompass the broader area influenced by changes in traffic patterns, thereby providing a more accurate representation of the project's impact on VMT.

The total VMT results for each scenario are presented in **Table 2**. The proposed realignment/ reconstruction of Bellevue Road is anticipated to reduce the total VMT across these boundaries.

Table 2: Total Boundary VMT

	No Build	Build	Net Change
Within City Limit	508,468	499,769	-6,403
Within Sphere of Influence	1,277,738	1,271,335	-8,699
Within Area of Influence Boundary	2,987,068	2,979,712	-7,356

Source: TCTDM, Fehr & Peers, February 2024.

As mentioned earlier, boundary VMT evaluates the change in total vehicle travel. Boundary VMT are further stratified by speed bin for air quality and greenhouse gas analyses. VMT by speed bin (5 mile per hour intervals) was calculated for both the Build and No Build scenarios across all time periods. The results of Daily VMT by speed bin within each boundary area are presented in **Table 3**. A slightly higher distribution of VMT within higher speed ranges was obtained for the Build scenario. This observation may suggest potential mobility improvement and congestion relief in the Build scenario. The findings across different time periods were also consistent with the Daily VMT results. Additional details on VMT per speed bin for different time periods are provided in **Attachment B**.

Table 3: Daily VMT by Speed Bin

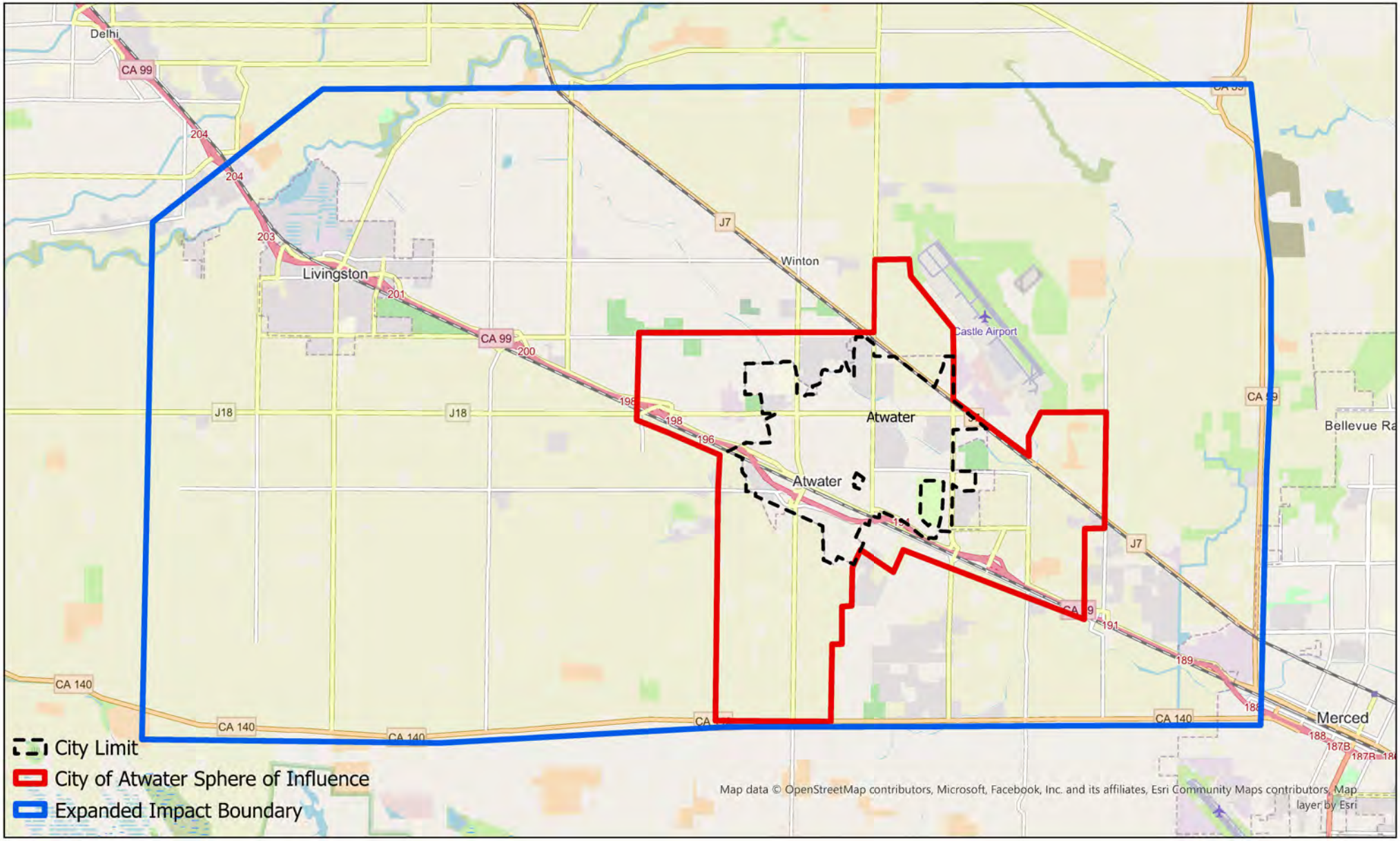
Speed Bin	Within City Limit				Within Sphere of Influence				Within Expanded Impact Boundary			
	No Build		Build		No Build		Build		No Build		Build	
	VMT	%	VMT	%	VMT	%	VMT	%	VMT	%	VMT	%
0 - 4.99	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
5 - 9.99	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
10 - 14.99	13,114	3%	13,210	3%	21,645	2%	21,767	2%	38,337	1%	38,881	1%
15 - 19.99	11,383	2%	11,183	2%	19,778	2%	19,580	2%	64,766	2%	64,456	2%
20 - 24.99	16,213	3%	15,619	3%	25,889	2%	32,665	3%	59,769	2%	65,854	2%
25 - 29.99	18,414	4%	15,331	3%	28,435	2%	27,964	2%	91,707	3%	114,206	4%
30 - 34.99	28,807	6%	28,884	6%	67,510	5%	57,188	4%	221,907	7%	164,933	6%
35 - 39.99	87,771	17%	63,664	13%	135,238	11%	106,117	8%	341,230	11%	335,367	11%
40 - 44.99	70,692	14%	91,276	18%	217,749	17%	234,531	18%	556,221	19%	636,081	21%
45 - 49.99	141,890	28%	141,111	28%	459,038	36%	463,025	36%	923,016	31%	874,101	29%
50 - 54.99	79,021	16%	78,731	16%	203,861	16%	210,738	17%	491,861	16%	488,370	16%
55 - 59.99	10,121	2%	10,078	2%	15,131	1%	15,059	1%	15,235	1%	15,150	1%
60 - 64.99	31,042	6%	30,683	6%	83,465	7%	82,702	7%	183,019	6%	182,314	6%
65+	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
Total Boundary VMT	**508,468**	**100%**	**499,770**	**100%**	**1,277,739**	**100%**	**1,271,336**	**100%**	**2,987,068**	**100%**	**2,979,712**	**100%**

Source: TCTDM, Fehr & Peers, February 2024.

Attachments

Attachment A VMT Boundary Limits
Attachment B VMT per Speed Bin for All Time Periods

Attachment A:
VMT Boundary Limits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187B
City Limit
City of Atwater Sphere of Influence
Expanded Impact Boundary
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Attachment B:
VMT per Speed Bin for All Time Periods

FEHR PEERS

VMT Estimates per Speed Bins – City Limit

Speed Bin	Daily		AM Peak Period		PM Peak Period		Mid-day Period		Evening Period	
	2045 No Build	2045 Build	2045 No Build	2045 Build	2045 No Build	2045 Build	2045 No Build	2045 Build	2045 No Build	2045 Build
0 - 5	0	0	0	0	0	0	0	0	0	0
5 - 10	0	0	0	0	0	0	0	0	0	0
10 - 15	13,114	13,210	3,422	3,429	3,268	3,280	6,424	6,502	0	0
15 - 20	11,383	11,183	1,958	1,928	2,402	2,365	4,689	4,570	2,334	2,320
20 - 25	16,213	15,619	3,668	3,339	3,700	3,650	7,546	7,331	1,300	1,300
25 - 30	18,414	15,331	11,169	8,809	2,580	1,867	3,934	3,927	732	728
30 - 35	28,807	28,884	14,107	15,806	3,745	4,166	9,110	7,141	1,846	1,771
35 - 40	87,771	63,664	41,696	17,617	13,406	13,190	27,648	28,155	5,022	4,702
40 - 45	70,692	91,276	8,854	31,698	9,289	8,705	49,093	47,648	3,456	3,225
45 - 50	141,890	141,111	3,959	3,697	15,172	15,146	121,745	121,132	1,014	1,136
50 - 55	79,021	78,731	23,690	24,222	42,731	42,252	10,130	9,801	2,470	2,456
55 - 60	10,121	10,078	0	0	9,718	9,676	0	0	403	402
60 - 65	31,042	30,683	0	0	0	0	0	0	31,042	30,683
65+	0	0	0	0	0	0	0	0	0	0
Sum	**508,468**	**499,769**	**112,522**	**110,544**	**106,010**	**104,296**	**240,318**	**236,206**	**49,619**	**48,722**

VMT Estimates per Speed Bins – City of Atwater Sphere of Influence

Speed Bin	Daily		AM Peak Period		PM Peak Period		Mid-day Period		Evening Period	
	2045 No Build	2045 Build	2045 No Build	2045 Build	2045 No Build	2045 Build	2045 No Build	2045 Build	2045 No Build	2045 Build
0 - 5	0	0	0	0	0	0	0	0	0	0
5 - 10	0	0	0	0	0	0	0	0	0	0
10 - 15	21,645	21,767	5,227	5,242	6,133	6,158	10,285	10,367	0	0
15 - 20	19,778	19,580	3,917	3,884	3,983	3,947	8,457	8,342	3,421	3,407
20 - 25	25,889	32,665	6,186	8,159	5,356	6,835	12,369	15,693	1,978	1,977
25 - 30	28,435	27,964	20,460	20,219	2,689	1,953	4,154	4,098	1,131	1,694
30 - 35	67,510	57,188	43,055	33,774	7,212	7,810	15,001	13,438	2,241	2,166
35 - 40	135,238	106,117	74,436	49,925	21,989	17,399	33,187	33,423	5,627	5,369
40 - 45	217,749	234,531	21,863	53,654	32,880	36,454	156,552	138,155	6,454	6,268
45 - 50	459,038	463,025	63,249	53,580	70,993	70,930	322,575	336,193	2,221	2,323
50 - 55	203,861	210,738	39,896	48,196	100,146	99,162	45,453	45,031	18,366	18,349
55 - 60	15,131	15,059	35	23	13,820	13,758	101	112	1,175	1,166
60 - 65	83,465	82,702	0	0	0	0	0	0	83,465	82,702
65+	0	0	0				0	0	0	0
Sum	**1,277,738**	**1,271,335**	**278,325**	**276,656**	**265,201**	**264,406**	**608,133**	**604,853**	**126,079**	**125,420**

VMT Estimates per Speed Bins – Expanded Impact Boundary

Speed Bin	Daily		AM Peak Period		PM Peak Period		Mid-day Period		Evening Period	
	2045 No Build	2045 Build	2045 No Build	2045 Build	2045 No Build	2045 Build	2045 No Build	2045 Build	2045 No Build	2045 Build
0 - 5	0	0	0	0	0	0	0	0	0	0
5 - 10	0	0	0	0	0	0	0	0	0	0
10 - 15	38,337	38,881	9841	10,480	10,391	10,416	18,105	17,985	0	0
15 - 20	64,766	64,456	32946	32,363	7,872	7,838	17,008	17,329	6,940	6,926
20 - 25	59,769	65,854	23674	25,359	9,919	11,384	23,337	26,273	2,839	2,838
25 - 30	91,707	114,206	42402	66,647	15,132	14,283	29,088	27,628	5,085	5,647
30 - 35	221,907	164,933	134612	78,023	30,271	30,564	48,745	48,148	8,279	8,198
35 - 40	341,230	335,367	126857	126,607	55,987	49,943	148,350	149,043	10,035	9,774
40 - 45	556,221	636,081	91725	122,276	98,233	116,488	346,256	377,486	20,007	19,831
45 - 50	923,016	874,101	97912	98,883	161,258	146,887	654,841	619,250	9,005	9,082
50 - 55	491,861	488,370	109097	106,292	215,855	215,624	127,279	126,880	39,630	39,573
55 - 60	15,235	15,150	46	35	13,820	13,758	101	112	1,268	1,245
60 - 65	183,019	182,314	0	0	0	0	0	0	183,019	182,314
65+	0	0	0	0	0	0	0	0	0	0
Sum	**2,987,068**	**2,979,712**	**669,112**	**666,965**	**618,737**	**617,185**	**1,413,111**	**1,410,133**	**286,108**	**285,429**