



## **Iron Horse Trail Dublin Boulevard Overcrossing Project**

### **Initial Study/Supplemental Mitigated Negative Declaration**

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October 2019





## **Iron Horse Trail Dublin Boulevard Overcrossing**

### **Initial Study/Supplemental Mitigated Negative Declaration**

The City of Dublin is considering construction of the Iron Horse Trail Dublin Boulevard Overcrossing (Overcrossing Project) that would include a free-span bridge structure and ramps to connect the bridge with the existing Iron Horse Trail where it occurs on the north and south sides of Dublin Boulevard. The City's decision to construct the overcrossing constitutes a "project" under the California Environmental Quality Act (CEQA) and requires a discretionary action by the City of Dublin (approve the Overcrossing Project for construction). As such, pursuant to the requirements of the California Environmental Quality Act (CEQA), the City must evaluate the potential for construction or operation of the Overcrossing Project to create adverse environmental effects. This Initial Study/Supplemental MND (IS/SMND) has been prepared for the Overcrossing Project pursuant to the rules for supplemental environmental review under Public Resources Code Section 21166 and CEQA Guidelines Section 15162, as described below.

#### **Description of the Proposed Project**

The Iron Horse Regional Trail is a major regional pedestrian and bicycle trail through central Alameda and Contra Costa Counties, providing non-motorized access to local communities and regional transit facilities including the nearby Dublin/Pleasanton BART station. Generally following a former Southern Pacific Railroad right-of-way that was abandoned in 1977, the trail passes through the cities of Livermore, Pleasanton, Dublin, San Ramon, Danville, Alamo, Walnut Creek, and Concord and unincorporated areas of the Counties of Contra Costa and Alameda. The Iron Horse Regional Trail is maintained by the East Bay Regional Park District. It has several existing bridges over busy roadways to help improve traffic flow on the roadways and facilitate pedestrian/bicycle movement along the trail.

Within the City of Dublin, the existing trail runs from northwest to southeast as it approaches Dublin Boulevard, which is a heavily travelled east-west roadway. Trail users crossing Dublin Boulevard must use the sidewalk along the south side of Dublin Boulevard for approximately 200 feet to cross the street at the existing Scarlett Drive signalized intersection and use the sidewalk along the north side of Dublin Boulevard for approximately 100 feet to get back to the trail (Figure 1).

The primary objective of the Overcrossing Project is to provide a safe crossing for trail users and to facilitate improved traffic flow along Dublin Boulevard by providing a grade-separated bridge crossing over Dublin Boulevard for pedestrians and bicyclists. The Overcrossing Project would



allow trail users to stay on the trail and cross over multiple lanes of automobile traffic on the proposed free-span bridge structure (Figure 2) without disrupting vehicular traffic flow.

The Overcrossing Project would require construction of bridge structure, support foundations, and graduated ramps facilitating connection to the existing at-grade trail on the north and south side of Dublin Boulevard. The bridge ramps will also connect to Don Biddle Park which is currently under construction and is located on the north side of Dublin Boulevard adjacent to the existing Iron Horse Trail right-of-way. The proposed free-span overcrossing structure would be approximately 230 feet in length and provide a minimum of 17 feet of vertical clearance from the Dublin Boulevard road surface (Figure 2). The entire length of the Overcrossing Project, including landings north and south of Dublin Boulevard, as well as the bridge span itself, is approximately 1,200 feet in length. The project area, which includes the total area that would be utilized for project construction encompasses approximately 2 acres (Figure 3).

### CEQA Background

On November 5, 2013, the City Council approved Resolutions 186-13 (EIR certification) and 187-13 (Dublin Crossing Specific Plan [DCSP] approval and General Plan amendments), as well as Ordinances 07-13 (Zoning Ordinance and Zoning Map changes) and 08-13 (Development Agreement). The DCSP covers an area of 189 acres and is generally bound by 5<sup>th</sup> Street to the north, Scarlett Drive to the west, Dublin Boulevard to the south, and Arnold Road to the east. Buildout of the DCSP is currently under way and includes construction of a residential mixed-use project with up to 1,995 single- and multi-family residential units; up to 200,000 square feet of retail, office, and/or commercial uses; a 30-acre Community Park (Don Biddle Park); a 5-acre Neighborhood Park, and a 12-acre school site.

The Dublin Crossing Specific Plan EIR (DCEIR), which was certified as part of the approvals listed above, concluded that build out of the DCSP would result in significant cumulative impacts from short-term construction air quality emissions and long-term operational emissions primarily in the form of vehicle and equipment exhaust.

The DCEIR document determined that the intersection of Scarlett Drive and Dublin Boulevard would operate at an unacceptable Level of Service F in the PM peak hour under both 2035 cumulative no project and 2035 cumulative plus project conditions. The DCEIR concluded that a grade separated crossing of the trail over Dublin Boulevard would allow more green time to be allotted to through traffic on Dublin Boulevard at its intersection with Scarlett Drive. With implementation of DCEIR Mitigation Measure 3.12-3 requiring a grade-separated crossing for the Iron Horse trail over Dublin Boulevard, the Scarlett Drive and Dublin Boulevard intersection would operate at level of service (LOS) C during the PM peak hour. Mitigation Measure 3.12-3 was also established in the DCEIR to reduce future emissions from Dublin Boulevard motorists stopping at the crosswalk at Scarlett Drive during commute hours to allow pedestrians and bicyclists to cross Dublin Boulevard to access the Iron Horse Trail. Mitigation Measure 3.12-3 in



the DCEIR specifically requires construction of a bridge crossing for the Iron Horse Trail over Dublin Boulevard:

- **DCEIR Mitigation Measure 3.12-3: Construction of a Grade Separated Crossing at the Intersection of Scarlett Drive and Dublin Boulevard.** To mitigate the impacts at the intersection of Scarlett Drive and Dublin Boulevard due to higher rate of pedestrians/bicyclists crossings at Dublin Boulevard, a grade separated crossing should be utilized. The grade separated crossing would eliminate the need for at-grade pedestrian actuations at the traffic signal, which would allow more green time to be allocated to through traffic on Dublin Boulevard.

Although impacts at the intersection of Scarlett Drive and Dublin Boulevard could be mitigated to less than significant, the DCEIR determined that the following impacts would remain significant even with implementation of all feasible mitigation:

- **Short-term Construction Air Quality** – The DCEIR concluded that even with all feasible construction mitigation measures, the Dublin Crossing Specific Plan project would generate construction emissions exceeding BAAQMD thresholds.
- **Long-term Operational Air Quality** – With application of the measures/design features regarding area and mobile source emissions within the Specific Plan, the DCEIR determined that operational emissions would exceed the thresholds for ROG, NO<sub>x</sub>, and PM<sub>10</sub>.
- **Long-term Operational Impacts to Freeway Ramps** – The Dublin Crossing Specific Plan project would result in significant impacts to the following freeway ramps:
  - Southbound Hacienda Drive to I-580 Eastbound On-ramp under project and cumulative conditions
  - Southbound Tassajara Road to I-580 Westbound On-ramp under cumulative conditions.

The DCEIR set forth Mitigation Measure 3.12-7 to modify ramp metering rates so that more vehicles could access the freeway. However, because the freeway ramps are operated by Caltrans, the City could not guarantee implementation of this mitigation measure.

Because the DCEIR concluded that, even with implementation of all feasible mitigation measures, these impacts could not be reduced to a less-than-significant level, a Statement of Overriding Considerations was adopted along with the DCEIR pursuant to CEQA Guidelines Section 15064 (a)(2).



Subsequently, on June 2, 2015 the City Council adopted a CEQA Addendum pursuant to CEQA Guidelines Sections 15162 and 15164 for the Amendments to the General Plan, DCSP, and Eastern Dublin Specific Plan related to the Dublin Crossing Specific Plan. The addendum concluded that the minor changes proposed for the General Plan, DCSP, and Eastern Dublin Specific Plan would not result in any of the conditions that would require preparation of a Subsequent or Supplemental EIR and therefore concluded that an addendum to the DCEIR should be prepared. The City Council also confirmed the findings of the Final EIR and the statement of overriding considerations originally adopted in 2013.

### **Applicable CEQA Requirements and Conclusions**

Although a grade-separated overcrossing for the Iron Horse Trail over Dublin Boulevard is described in the DCEIR and is included as a mitigation for traffic impacts, the analysis in the DCEIR does not specifically address the environmental impacts of construction and operation of the Overcrossing Project. Thus, it is the purpose of this document to analyze environmental impacts specifically related to the Overcrossing Project pursuant to the requirements of CEQA Guidelines Section 15162, which identifies the following conditions requiring subsequent environmental review following certification of an EIR:

- (a) When an EIR has been certified or a negative declaration adopted for a project, no subsequent EIR shall be prepared for that project unless the lead agency determines, on the basis of substantial evidence in the light of the whole record, one or more of the following:
  - (1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;
  - (2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or
  - (3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following:
    - (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration;
    - (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR;



- (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or
- (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

The environmental impacts of the Overcrossing Project were therefore analyzed based on CEQA Guidelines Section 15162 in the form of the following questions:

- a) *Would the proposed Iron Horse Trail Dublin Boulevard Overcrossing Project involve substantial changes to the project analyzed in the Dublin Crossing EIR that would result in either (1) new significant impacts not identified in the Dublin Crossing EIR or (2) any of the significant unavoidable impacts identified in the DCEIR being substantially more severe?*

Findings: There are no substantial changes to the overall 189-acre project analyzed in the DCSP EIR. The proposed Overcrossing Project will add foundation and footings for the free-span overcrossing of Dublin Boulevard plus ramps to connect with the existing trail at grade. Land use and approved development in the DCSP would not be changed as a result of construction and operation of the overcrossing structure and associated access ramps connecting the structure to the Iron Horse Trail. The project would not result in new or substantially more severe significant impacts.

- b) *Have any substantial changes occurred with respect to the circumstances under which the Dublin Crossing Specific Plan is being undertaken such that the proposed Iron Horse Trail Dublin Boulevard Overcrossing Project would involve either new or substantially more severe significant impacts than those identified in the Dublin Crossing EIR?*

Finding: While the DCEIR did not specifically address impacts associated with the Overcrossing Project, the northern landing for the project is located within the westernmost portion of Don Biddle Community Park adjacent to the east side of the Scarlett Drive right-of-way, and the impacts associated with both the park and Scarlett Drive were analyzed in the DCSP.

Construction of the Overcrossing Project would begin after development of the 30-acre Don Biddle Community Park has been completed. Temporary construction impacts of the proposed bridge crossing on park uses will be subject to the mitigation measures established in the DCEIR.

Neither the bridge crossing itself nor the southern landing of the overcrossing are within the area analyzed in the DCEIR. Therefore, the analyses were undertaken for this



IS/SMND, including a wetland delineation study (Appendix B) and a cultural resources report (Appendix C). These analyses substantiate that the modifications to Don Biddle Community Park, along with addition of the proposed bridge crossing and southerly landing to the project area analyzed in the DCEIR would not cause any new or substantially more severe significant impacts than those identified in that EIR.

- c) *Is there new information of substantial importance, which was not known and could not have been known at the time of the DCEIR that shows (1) the Overcrossing Project at Dublin Boulevard would result in a new significant effect not addressed in that EIR or a substantially severe significant effect than was identified in that EIR; (2) that mitigation measures or alternatives previously determined to be infeasible are now feasible but the Applicant has declined to adopt them; or (3) mitigation measures or alternatives considerably different from those in the DCEIR would substantially reduce significant effects but the Applicant declines to adopt them?*

Finding: The design of the trail overcrossing of Dublin Boulevard and related construction details were not known and could not have been known at the time of the DCEIR. However, the analyses undertaken for this IS/SMND, including a wetland delineation study and a cultural resources report, have determined there is no new information showing a new or substantially more severe significant effect than those identified in the DCEIR would result. No mitigation measures previously determined to be infeasible are now feasible, nor are any mitigation measures considerably different than those set forth in the DCEIR now needed to address the impacts of the proposed Iron Horse Trail bridge crossing over Dublin Boulevard. All relevant mitigation measures from the DCEIR will be implemented for the bridge crossing project as that EIR adequately describes the impacts and mitigations associated with the proposed development. Appendix D includes a list of the DCEIR mitigation measures that would apply to the Overcrossing Project.

The DCEIR identified and analyzed three alternatives (No Project, Reduced Development, Alternate Use) and did not identify any additional alternatives that were considered and rejected from further analysis because they were infeasible. The three alternatives analyzed in the DCEIR were rejected as they did not attain most basic project objectives, did not significantly reduce Project impacts, and cannot now be feasibly developed since construction of the Specific Plan, as it was approved, is well under way. No alternatives exist that are considerably different than those set forth in the DCEIR which would address the impacts of the proposed Iron Horse Trail bridge crossing over Dublin Boulevard.

- d) *Should a subsequent or supplemental EIR or negative declaration be prepared?*

Finding: This IS/SMND evaluates the environmental effects of the proposed Overcrossing Project at Dublin Boulevard and demonstrates that the Overcrossing Project would not



result in any of the conditions set forth in CEQA Guidelines Section 15162 requiring preparation of a Subsequent or Supplemental EIR. Because the proposed Overcrossing Project is subject to mitigation measures set forth in the DCEIR, a Supplemental Mitigated Negative Declaration was therefore prepared.

## Conclusion

This Supplemental MND is prepared pursuant to Public Resources Code Section 21166 and CEQA Guidelines Section 15162. The City further determines that the Dublin Crossing Specific Plan EIR adequately addresses the potential environmental impacts for the project with the supplemental analyses set forth in this IS/SMND.

This Supplemental MND will be circulated for public review for 20 days in accordance with CEQA requirements. A 20-day public review is appropriate since the proposed Overcrossing Project does not meet any of the criteria set forth for Projects of Statewide, Regional, or Areawide Significance set forth in CEQA Guidelines Section 15026.

The Dublin Crossing Specific Plan EIR and all resolutions cited above are incorporated herein by reference and are available for public review during normal business hours in the Community Development Department, Dublin City Hall, 100 Civic Plaza, Dublin CA.





## **Iron Horse Trail Dublin Boulevard Overcrossing**

### **Initial Study/Supplemental Mitigated Negative Declaration**

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October 2019



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## List of Acronyms

A-P	Alquist-Priolo
AB	Assembly Bill
ABAG	Association of Bay Area Governments
ACE	Altamont Commuter Express
AQMPs	Air Quality Management Plans
BAAQMD	Bay Area Air Quality Management District
BART	Bay Area Rapid Transit
BMPs	Best Management Practices
CAAQS	California Ambient Air Quality Standards(
Cal/EPA	California Environmental Protection Agency
CAP	Clean Air Plan
CAP	Climate Action Plan
CARB	California Air Resources Board
CARE	Community Air Risk Evaluation
CBC	California Building Code
CCAA	California Clean Air Act
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CDMG	California Department of Mines and Geology
CESA	California Endangered Species Act
CEQA	California Environmental Quality Act
CGS	California Geological Survey
CH <sub>4</sub>	methane
CNDDDB	California Natural Diversity Database
CNRA	California Natural Resources Agency
CO	carbon monoxide
Corps	U.S. Army Corps of Engineers
CRHR	California Register of Historic Resources
CWA	Clean Water Act
dB	decibel
DBH	diameter at breast height
DCEIR	Dublin Crossing Specific Plan EIR
DCSP	Dublin Crossing Specific Plan
DOC	California Department of Conservation
DOSH	Division of Occupational Safety and Health
DTSC	Department of Toxic Substances Control
EACCS	Eastern Alameda County Conservation Strategy
EPA	U.S. Environmental Protection Agency



FCAA	Federal Clean Air Act
FEMA	Federal Environmental Management Agency
FESA	Federal Endangered Species Act
FGC	Fish and Game Code
GHG	greenhouse gas
HAPs	hazardous air pollutants
HOV	high occupancy vehicle
Hp	horsepower
HRS	Hazard Ranking System
IS/SMND	Initial Study/Supplemental MND
LOS	level of service
MBTA	Migratory Bird Treaty Act
MLD	Most Likely Descendent
MUTCD	Manual on Uniform Traffic Control Devices
N <sub>2</sub> O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NASA	National Aeronautics and Space Administration
NPDES	National Pollutant Discharge Elimination System
NO <sub>2</sub>	nitrogen dioxide
NOI	Notice of Intent
NOx	nitrogen oxide
NPL	National Priority List
NPPA	Native Plant Protection Act
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NWIC	Northwest Information Center
O <sub>3</sub>	Ozone
OHP	Office of Historic Preservation
OPR	Office of Planning and Research
PDA	Priority Development Areas
PM	particulate matter
PM <sub>2.5</sub>	fine particulate matter
PM <sub>10</sub>	coarse particulate matter
ROGs	Reactive Organic Gases
SB	Senate Bill
SFHA	Special Flood Hazard Area
SHPO	State Historical Preservation Office
SLF	Sacred Lands File



SO <sub>2</sub>	sulfur dioxide
SO <sub>x</sub>	sulfur oxide
SWPPP	Storm Water Pollution Prevention Plan
USC	United States Code
USFWS	United States Fish and Wildlife Services
USGS	United States Geologic Survey
VMT	Vehicle Miles Travelled
VOCs	volatile organic compounds



# **Iron Horse Trail Dublin Boulevard Overcrossing Initial Study/Supplemental Mitigated Negative Declaration**

## **Background and Project Description**

### **Project Title**

Iron Horse Trail Dublin Boulevard Overcrossing Project

### **Lead Agency Name and Address**

City of Dublin  
100 Civic Plaza  
Dublin, CA 94568

### **Contact Person and Phone Number**

Obaid Khan  
Transportation and Operations Manager  
Phone: 925-833-6630  
obaidd.khan@dublin.ca.gov

### **Project Location and Setting**

The Iron Horse Regional Trail is a major regional pedestrian and bicycle trail through central Alameda and Contra Costa Counties, generally following a former Southern Pacific Railroad right-of-way that was abandoned in 1977. The Iron Horse Regional Trail was first established in 1986. The trail currently passes through the cities of Livermore, Pleasanton, Dublin, San Ramon, Danville, Alamo, Walnut Creek, and Concord and unincorporated areas of the Counties of Contra Costa and Alameda. The Iron Horse Regional Trail, which is maintained by the East Bay Regional Park District, has several existing bridges over busy roadways to help improve traffic flow on the roadways and facilitate pedestrian/bicycle movement along the trail.

The proposed project is a free-span bridge crossing for the Iron Horse Regional Trail over Dublin Boulevard within the City of Dublin. Currently, the trail runs from northwest to southeast as it approaches Dublin Boulevard, which is a heavily travelled east-west roadway. The existing at-grade trail crossing of Dublin Boulevard is skewed and requires awkward movement for trail users attempting to cross Dublin Boulevard. Trail users approaching Dublin Boulevard from the



southeast are currently required to turn left and use the sidewalk along the south side of Dublin Boulevard for approximately 200 feet, cross the street at the existing Scarlett Drive signalized intersection, and then turn right and use the sidewalk along the north side of Dublin Boulevard for approximately 100 feet to get back to the trail (Figure 1).

The primary objective of the Iron Horse Trail Dublin Boulevard Overcrossing Project is to provide a safe crossing for trail users and facilitate improved traffic flow along Dublin Boulevard by providing a grade-separated bridge crossing over Dublin Boulevard for pedestrians and bicyclists. Construction of the proposed bridge crossing would allow trail users to stay on the trail and cross over multiple lanes of automobile traffic on the proposed bridge (Figure 2) without disrupting vehicular traffic flow.

The overcrossing would require construction of touchdown landings with graduated ramps on the north side of Dublin Boulevard adjacent to the Scarlett Drive right-of-way, within the westernmost portion of Don Biddle Park and on the south side of Dublin Boulevard within the existing Iron Horse Trail right-of-way. The proposed free-span bridge structure would be approximately 230 feet in length and would a minimum 17 feet of clearance over the Dublin Boulevard road surface (Figure 2). The entire Overcrossing Project length, including landings north and south of Dublin Boulevard, as well as the bridge span itself, is approximately 1,200 feet in length.

Adjacent development includes commercial and residential development along Dublin Boulevard including development of the Dublin Crossing Specific Plan area with parks, open space, residential, and commercial uses. The Dublin/Pleasanton BART station is located approximately 0.25 miles south of the project area. The project would provide a grade-separated crossing for Iron Horse Trail users accessing the BART station or heading to and from other regional locations in the vicinity of Dublin Boulevard and the Specific Plan area. The project is included as Mitigation Measure 3.12-3 to reduce emissions in the DCEIR.

### **Project Applicant's Name and Address**

City of Dublin  
100 Civic Plaza  
Dublin, CA 94568

### **General Plan Designation and Zoning**

Open Space/Park (P)

### **Technical Studies Prepared Subsequent to the Dublin Specific Plan Crossing EIR**

The Initial Study/Supplemental Mitigated Negative Declaration (IS/SMND) presented



below relies and builds on the technical studies and analysis presented in the DCEIR document. In addition to the DCEIR technical reports and their findings which analyzed in detail the impacts of a 189-acre study area, the IS/SMND addresses the entire area affected by the proposed Overcrossing project, including the bridge over Dublin Boulevard and its southerly landing, which are outside of the area analyzed in the DCEIR. In addition, two additional technical studies were completed specifically for the Overcrossing Project: Biological Resources, Appendix B and Cultural Resources Appendix C analysis for the proposed Overcrossing Project. The two additional technical studies are summarized below.

### Biological Resources

Based on the current development plan and schedule for the Dublin Crossing Specific Plan, the Don Biddle Community Park will be constructed as far west as the Scarlett Drive right-of-way and will be in use prior to initiation of the construction for the Overcrossing Project's foundations and ramps and the installation of the free-span bridge structure. Thus, the northerly landing of the proposed project would occur within the community park. Within this portion of the Overcrossing Project area, the Chabot Channel and associated riparian vegetation would be restored as part of development of the community park. During construction of the Overcrossing Project, the channel and any restored habitats within the park would be avoided, which is a requirement established in DCEIR Mitigation Measure 3.3-1. Therefore, no additional study of this portion of the project area was initiated during preparation of the IS/SMND.

The portion of the Overcrossing Project area south of Dublin Boulevard as it exists today is flanked by urban development and encompasses the Iron Horse Trail, adjacent annual grassland/ruderal habitats, a large palm tree, and a row of small valley oak trees planted adjacent to the trail (Figure 5). Biologists conducted field surveys of the project area south of Dublin Boulevard in February, March, June, and August of 2018, to evaluate the potential for this portion of the project area to support protected plant and animal species. Field surveys were conducted during the appropriate period during which species could be observed if they were present in the project area. A summary of the individual species with the potential to occur in the project area and the conclusion of the analysis based on biologist's field surveys is included in Appendix A. In addition, biologists conducted a formal wetland delineation which is included as Appendix B. The U.S. Army Corps of Engineers conducted a site visit, concurred with the findings of the formal delineation report, and issued a Preliminary Jurisdictional Determination (Figure 6).

### Cultural Resources

No cultural resources are located within the Overcrossing Project area. There were no Cultural Resources or Tribal Cultural Resources identified within the portion of the project area where it overlaps the community park on the north side of Dublin Boulevard, according to the DCEIR.



Also, as stated above, the community park will be in operation prior to construction of the proposed Overcrossing Project. A site survey and archival research for the project area south of Dublin Boulevard did not result in identification of any historic resources. Cultural Resource site survey, archival research and tribal consultation undertaken for the proposed project has been summarized and is included in Appendix C.

### **Tribal Cultural Resources**

Subsequent to certification of the DCEIR, AB 52 was adopted, requiring CEQA Lead Agencies to address potential effects of proposed projects upon Tribal Cultural Resources. A tribal cultural resource is 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:

- a) 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), or
- b) 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 Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

For the Overcrossing Project, the City of Dublin initiated communication with local Native American Tribes in June 2018 to request knowledge or documentation pertaining to tribal resources in the project area. This communication is summarized in Appendix C and includes a letter requesting that a Native American Monitor be present during construction. The Overcrossing Project accommodates this request by including in the Project Description the commitment to retain a Native American Monitor to be present during any construction activity that would result in ground disturbance such as grading, or excavation needed to create foundations and footings.

### **Project Description**

The Overcrossing Project consists of a free-span bridge that would create a grade-separated crossing of Dublin Boulevard where it intersects the Iron Horse Regional Trail within the City of Dublin. Currently, the Trail runs from northwest to southeast as it approaches Dublin Boulevard, which is a heavily traveled east-west roadway. The existing at-grade trail crossing of Dublin Boulevard is skewed. Trail users approaching Dublin Boulevard from the southeast are currently required to turn left and use the sidewalk along the south side of Dublin Boulevard for approximately 200 feet, cross the street at the existing Scarlett Drive signalized intersection,



and then turn right and use the sidewalk along the north side of Dublin Boulevard for approximately 100 feet to get back to the Trail (Figure 1).

The Overcrossing Project would permit trail users to cross over multiple lanes of automobile traffic on Dublin Boulevard, while shortening the delay time at the Scarlet Drive intersection for vehicles travelling along Dublin Boulevard (Figure 2). The Overcrossing Project would require construction of foundation footings to support the free-span bridge structure and the ramps into Don Biddle Community Park on the north side of Dublin Boulevard and along the south side of Dublin Boulevard, connecting to the existing at-grade trail to the north and south of Dublin Boulevard. The approximately 230-foot long free-span overcrossing structure would be fabricated off-site and would be delivered to the project site when it is ready to be installed. The bridge structure, when installed, would provide a minimum of 17 feet of vertical clearance from the Dublin Boulevard road surface (Figure 2). The total length of the Overcrossing Project is approximately 1,200 feet.

### Construction Program

The proposed Overcrossing Project would be constructed over a period of approximately 180 working days. All construction and staging will be accommodated within the project area (Figure 3) and perimeter fencing will be established around construction areas to prevent encroachment into adjacent areas and to prevent trail users from coming into direct contact with construction activities. The free-span bridge structure will be fabricated off-site at a manufacturing facility and delivered to the project area for assembly and placement. Assembly of the free-span superstructure will take approximately one week and placement of the structure over Dublin Boulevard will be scheduled to occur one day during non-peak traffic hours over night. Installation of the bridge will adhere to the traffic/transportation mitigation measures identified in the DCEIR which established requirements for construction vehicles and anticipated the potential need to reduce travel lanes or temporarily close Dublin Boulevard (if needed).

A Native American Monitor will be present on the site during construction any time grading or excavation or ground disturbance occurs as a result of requests pertaining to Tribal Cultural Resources as described in AB 52 and summarized above and summarized in more detail in the Cultural Resources Technical Report (Appendix C).

Trail use will be maintained at all times during construction and bridge installation. However, construction may require short-term trail re-routing within the project area to accommodate specific construction tasks north and south of Dublin Boulevard so that the trail remains open at all times during project construction. All temporary trail rerouting will occur within the existing right-of-way for the trail, which was previously disturbed as part of trail construction. The impacts of such temporary rerouting are addressed in this document as part of the overall construction of the proposed Overcrossing Project.

All construction and staging will be accommodated within the project area and perimeter fencing will be established around construction areas to prevent trail users from coming



into contact with construction activities.

### Site Access and Circulation

During construction of the foundations and footings and during installation of the free-span bridge structure all construction crews and equipment will gain access to the project area directly from Dublin Boulevard.

### Independent Utility of the Iron Horse Trail Dublin Boulevard Overcrossing Project

The proposed Iron Horse Trail bridge crossing over Dublin Boulevard was described in the City of Dublin's Iron Horse Trail Feasibility Study (Feasibility Study) published in 2017 and approved by the City Council on November 7, 2017. The Feasibility Study identified a series of potential improvements to the Iron Horse Trail intended to increase trail access for users of all ages and abilities, and to connect more communities to the Dublin/Pleasanton BART Station. The Feasibility Study focused on access to the multi-use trail near BART stations and explored options for improving trail crossings at Dougherty and Dublin Boulevard.

Because of the existing need to (1) provide a safe crossing for the trail over Dublin Boulevard for pedestrian/bicycle traffic, (2) facilitate vehicular movement along Dublin Boulevard, and (3) implement Mitigation Measure 3.2-1 from the DCEIR, the City of Dublin would pursue a bridge crossing for the trail over Dublin Boulevard even if none of the other trail improvements identified in the Feasibility Study were to be implemented. The proposed Iron Horse Trail bridge crossing therefore has independent utility and is analyzed under CEQA as a separate and distinct project from other potential trail improvements identified in the 2017 Feasibility Study.



## Determination

On the basis of this initial study which reflects the independent judgment of the City of Dublin:

I find that the proposed project WILL NOT have a significant effect on the environment other than those disclosed in the certified Dublin Crossing Environmental Impact Report, nor will any of the significant environmental effects disclosed in that document be substantially more severe as the result of the proposed project. Because the proposed project will be subject to the mitigation measures set forth in the Dublin Crossing Environmental Impact Report, a SUPPLEMENTAL MITIGATED NEGATIVE DECLARATION will be prepared.

CITY OF DUBLIN

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Obaid Khan

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Date



## Environmental Checklist

The checklist for the Iron Horse Trail Dublin Boulevard Overcrossing focuses on the following key questions:

- Will the Iron Horse Trail Bridge Crossing result in new or substantially more severe impacts compared to those disclosed in the Dublin Crossing EIR?
- Will the Iron Horse Trail Bridge Crossing introduce mitigation measures that were previously found to be infeasible in the Dublin Crossing EIR or mitigation measures that the Dublin Crossing project proponents declined to implement?
- Will the Iron Horse Trail Bridge Crossing implement mitigation measures that would avoid new or substantially more severe impacts compared to those disclosed in the Dublin Crossing EIR?

The answers to these three questions encompass all of the criteria set forth in CEQA Guidelines Section 15162(a) and will be used in the Checklist for the Iron Horse Trail Bridge Crossing as illustrated below. If any of the boxes in either column (1) or (2), below, are checked, a Subsequent or supplemental EIR would be required. If any of the boxes in column (3) are checked, a Supplemental Mitigated Negative Declaration would be prepared. Finally, if only the boxes in Column 4 are checked, a Supplemental Mitigation Negative Declaration would be prepared if the project were subject to mitigation measures from the previous EIR. A Subsequent Negative Declaration would be prepared if the proposed project would not be subject to mitigation from the previous EIR.



## Aesthetics

Issues	(1) New or Substantially More Severe Significant Impact	(2) New Information Indicates that a Mitigation Measure or Alternative Previously found to be Infeasible or Declined by Project Proponent now Proposed	(3) New or Substantially More Severe Significant Impact Avoided with Mitigation Incorporated	(4) No New or Substantially More Severe Significant Impact
<b>1. AESTHETICS — Except as provided in Public Resources Code Section 21099, would the project:</b>				
a) Have a substantial adverse effect on a scenic vista?				<input checked="" type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				<input checked="" type="checkbox"/>
c) Conflict with applicable zoning and other regulations governing scenic quality?				<input checked="" type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect daytime or nighttime views in the area?				<input checked="" type="checkbox"/>

## Existing Setting

The Overcrossing Project is located north of the Dublin/Pleasanton BART Station, along the Iron Horse Trail right-of-way where it intersects with Dublin Boulevard in the City of Dublin. Surrounding development along Dublin Boulevard is mixed-use, primarily commercial, with new residences located directly adjacent to the east. A community park is being constructed along the north side of Dublin Boulevard adjacent to the Iron Horse Trail as described and addressed in the Dublin Crossing Specific Plan EIR.

Trail users in the project area primarily see urban development and transportation infrastructure in the foreground, with distant views of Pleasanton Ridge to the west, and distant views of Altamont Pass and undeveloped hills to the east when crossing Dublin Boulevard. Even though motorists traveling along Dublin Boulevard in the vicinity of the project area currently see adjacent urban development in the immediate view, distant views of



undeveloped hills to the east are afforded from the roadway, and distant views of undeveloped lands along Pleasanton Ridge are visible to motorists traveling west on Dublin Boulevard.

### Regulatory Framework

A scenic vista is a view that possesses visual and aesthetic qualities of high value to the community. Scenic vistas can provide views of natural features or significant structures and buildings. The term “vista” generally implies an expansive view, usually from an elevated point or open area.

I-680 is designated as a State Scenic Highway. According to the State Scenic Highway website, “the scenic aspects of the corridor feature the rolling wooded hills of the Contra Costa range contrasted with the flat Sunol Valley ringed by distance hills to the north and east. While not officially listed, I-580 is eligible for listing as a State Scenic Highway.

The City of Dublin General Plan indicates that I-580, I-680, and Dougherty Road were designated scenic routes by Alameda County in 1966. These are primary routes from which people traveling through Dublin gain their impression of the City. Section 5.6, Implementing Policy B in the City of Dublin General Plan requires that design review be conducted for all projects visible from a designated scenic route. Because a portion of the project area may be visible from I-580, the City of Dublin General Plan requires that design review be conducted for all projects visible from a designated scenic route. In addition, the DCEIR states that the design guidelines set forth in the Dublin Crossing Specific Plan “apply to all new construction within the Specific Plan area.” Therefore, the proposed Overcrossing project will be subject to the City’s design review process.

### Dublin Crossing Specific Plan EIR Findings

The DCEIR concluded that buildout of the Dublin Crossing Specific Plan would not result in significant impacts to aesthetic resources and would not substantially increase light and glare. The analysis leading to this conclusion was based on an compliance with the DCSP and its provisions for design guidelines associated with proposed development.

Design Guidelines included in the DCSP that would apply to the Overcrossing Project include the following:

- Adequate lighting should be provided throughout the site to create a safe and non-threatening environment. The scale, materials, colors, and design detail of light posts and fixtures should reflect the desired character of Dublin Crossing and the architectural style of the surrounding buildings. Light posts should be appropriately scaled to pedestrians near sidewalks and other areas of pedestrian circulation. Extremely tall light posts and fixtures should be avoided.



- Lighting fixtures should be compatible with the architectural style and character of the building. The color, size, placement, and number of fixtures should enhance the overall design and character of the building and site.
- Energy efficient, low voltage lighting is encouraged.
- Exterior lighting should be unobtrusive and not cause glare or spillover into neighboring properties, and lighting fixtures should direct illumination downward to minimize light pollution impacts. Up-lighting, spot-lighting, and decorative color lighting may be appropriate for prominent buildings and features, but illumination should not adversely impact neighboring properties with sensitive uses, such as residential.
- If necessary, security lighting fixtures should be hooded, recessed, and/or located in such a manner to only illuminate the intended area.
- Pedestrian scale fixtures are encouraged and should shine downward and emit a warm light along walkways.
- All building entrances, including alleys, plazas, drive isles, paseos, walkways, common areas, and others should be well lit.
- Lighting sources should be concealed from view to prevent glare and promote lighting uniformity.
- Illuminated bollards or pathway lights should be integrated into the pedestrian circulation system when other lighting is not provided.

## Impacts Evaluation

### a) Have a substantial adverse effect on a scenic vista?

Since the project area and its immediate surroundings do not currently include views of monuments, or unique buildings that would be classified as scenic resources there would be no adverse effects to scenic resources and no new or significant impacts as a result of construction and operation of the overcrossing.

Trail users and motorists within the project area and vicinity are afforded distant views of undeveloped hills and ridgelines particularly when positioned within the travel lanes of Dublin Boulevard. Once constructed, the free-span bridge overcrossing would be experienced by motorists as a momentary obstruction of the distant views of undeveloped hills or ridgelines afforded from the roadway when traveling along Dublin Boulevard (see below). However, compared to existing conditions, trail users would have expanded views of undeveloped hills and ridgelines afforded by the elevation of the Dublin Boulevard overcrossing structure.





- b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

There are no scenic resources identified in the project area. The southeast portion of the project area may be momentarily visible to motorists traveling along I-580 which is a designated scenic route. The overcrossing structure would be consistent with the urban character of the existing views from the highway and would not obstruct views or substantially damage scenic resources viewed from the scenic route.

- c) Conflict with applicable zoning and other regulations governing scenic quality?

The urban nature of the surroundings and the proximity of the proposed Overcrossing project to BART and the community park make this project and its design consistent with the existing visual character of the site and surrounding area. The visual character of the site within the developed urban environment along Dublin Boulevard would not be substantially changed by construction and operation of the overcrossing. In addition, because the Overcrossing Project is designed to comply with all applicable zoning and other regulations governing scenic quality, no new or substantially more severe significant impacts would result.

- d) Create a new source of substantial light or glare which would adversely affect daytime or nighttime views in the area?

The DCEIR's analysis of aesthetics is based on the urban design provisions of the Dublin Crossing Specific Plan. Because the proposed Overcrossing Project is subject to the mitigation measures set forth in the DCEIR, it is also subject to the project design features of the Dublin Crossing Specific Plan that were used in the analyses of the DCEIR. As noted in the Regulatory Framework section, above, the Overcrossing Project would be required to comply with design guidelines included in the Dublin Crossing Specific Plan by demonstrating the proposed exterior lighting is non-intrusive while still providing an adequate amount of light. To ensure traffic safety, lighting on bridge structure and bridge approaches would be designed so as not to shine onto Dublin Boulevard motorists. Compliance with these design guidelines would ensure that the proposed Overcrossing Project does not introduce substantial light and glare which would pose a hazard or nuisance. Therefore, the Overcrossing Project would result in no new or substantially more severe significant impacts.



## Agricultural and Forestry Resources

ENVIRONMENTAL IMPACTS Issues	(1) New or Substantially More Severe Significant Impact	(2) New Information Indicates that a Mitigation Measure or Alternative that was Previously found to be Infeasible or Declined by Project Proponent now Proposed	(3) New or Substantially More Severe Significant Impact Avoided with Mitigation Incorporated	(4) No New or Substantially More Severe Significant Impact
<b>2. AGRICULTURAL AND FOREST RESOURCES — Would the project:</b>				
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?				<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				<input checked="" type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4256), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?				<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?				<input checked="" type="checkbox"/>
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?				<input checked="" type="checkbox"/>



## Existing Setting

The project area is not being utilized for agricultural uses and is designated as “Other Land” on the Alameda County Important Farmland Map that is published by the California Department of Conservation (DOC). The narrow corridor within the project area is not suitable for agricultural purposes. In addition, the project area does not contain any forest resources as defined by the California Environmental Quality Act (CEQA) Guidelines.

## Dublin Crossing EIR Findings

Because the area and adjacent lands were not being utilized for agricultural uses, nor were any lands in the area mapped as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, the DCEIR concluded that no impacts in relation to agricultural resources would result. In addition, because Dublin Crossing was located within an urban setting with no forest resources within or adjacent to the project area, the DCEIR concluded that no impacts in relation to agricultural resources would result.

## Impacts Evaluation

- a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) to non-agricultural use?

No lands mapped as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance existing within or adjacent to the proposed Overcrossing projects. No impacts will therefore result.

- b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?

The project site for the proposed trail crossing of Dublin Boulevard is not zoned or suitable for agricultural use and is not subject to a Williamson Act contract. No impacts will therefore result.

- c) Conflict with existing zoning for, or cause rezoning of, forest land or timberland zoned Timberland?

The project site for the proposed trail crossing of Dublin Boulevard is not zoned or suitable for use as forest or timberland. No impacts will therefore result.

- d) Result in the loss of forest land or conversion of forest land to non-forest use?

See Response c), above.

- 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?

Because the project site and adjacent lands are within an urban setting and not suitable for agricultural or forest use, no impacts will result.



## Air Quality

ENVIRONMENTAL IMPACTS Issues	(1) New or Substantially More Severe Significant Impact	(2) New Information Indicates that a Mitigation Measure or Alternative that was Previously found to be Infeasible or Declined by Project Proponent now Proposed	(3) New or Substantially More Severe Significant Impact Avoided with Mitigation Incorporated	(4) No New or Substantially More Severe Significant Impact
<b>3. AIR QUALITY — Would the project:</b>				
a) Conflict with or obstruct implementation of the Bay Area Clean Air Plan?				<input checked="" type="checkbox"/>
b) 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?				<input checked="" type="checkbox"/>
c) Expose sensitive receptors to substantial pollutant concentrations?				<input checked="" type="checkbox"/>
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?				<input checked="" type="checkbox"/>

## Existing Setting

The City of Dublin is located in eastern Alameda County, which is within the San Francisco Bay Area Air Basin (hereinafter “Basin”). The Basin includes San Mateo, Santa Clara, Alameda, Contra Costa, Napa, and Marin counties, and forms a climatological sub-region. This climatological sub-region stretches from Richmond to San Leandro, bounded to the west by the San Francisco Bay and to the east by the Oakland-Berkeley Hills. The Oakland-Berkeley Hills have a ridgeline height of approximately 1,500 feet, a significant barrier to air flow. In this area, marine air traveling through the Golden Gate, as well as across San Francisco and through the San Bruno Gap, is a dominant weather factor. The Oakland-Berkeley Hills cause the westerly flow of air to split off to the north and south of Oakland, which causes diminished wind speeds.



## Criteria Air Pollutants

Local ambient air quality is monitored by the Bay Area Air Quality Management District (BAAQMD) and the California Air Resources Board (CARB). CARB monitors ambient air quality at approximately 250 air-monitoring stations across the State. Air quality monitoring stations usually measure pollutant concentrations ten feet above-ground level; therefore, air quality is often referred to in terms of ground-level concentrations.

### Ozone

Ozone ( $O_3$ ) occurs in two layers of the atmosphere. The layer surrounding the earth's surface is the troposphere. The troposphere extends approximately 10 miles above ground level, where it meets the second layer, the stratosphere. The stratospheric (the "good"  $O_3$ ) layer extends upward from about 10 to 30 miles and protects life on earth from the sun's harmful ultraviolet rays (UV-B).

What is referred to as "Bad"  $O_3$  is a photochemical pollutant, and needs volatile organic compounds (VOCs), nitrogen oxide ( $NO_x$ ), and sunlight to form; therefore, VOCs and  $NO_x$  are  $O_3$  precursors. VOCs and  $NO_x$  are emitted from various sources throughout the area. To reduce  $O_3$  concentrations, it is necessary to control the emissions of these  $O_3$  precursors. High  $O_3$  concentrations can form over large regions when emissions from motor vehicles and stationary sources are carried hundreds of miles from their origins.

### Carbon Monoxide

Carbon monoxide (CO) is an odorless, colorless toxic gas that is emitted by mobile and stationary sources as a result of incomplete combustion of hydrocarbons or other carbon-based fuels. In cities, automobile exhaust can cause as much as 95 percent of all CO emissions. At high concentrations, CO can reduce the oxygen-carrying capacity of the blood and cause headaches, dizziness, unconsciousness, and death.

### Nitrogen Dioxide

$NO_x$ 's are a family of highly reactive gases that are a primary precursor to the formation of ground-level  $O_3$  and react in the atmosphere to form acid rain. Nitrogen dioxide ( $NO_2$ ), often used interchangeably with  $NO_x$ , is a reddish-brown gas that can cause breathing difficulties at high levels. Peak readings of  $NO_2$  occur in areas that have a high concentration of combustion sources (e.g., motor vehicle engines, power plants, refineries, and other industrial operations).  $NO_x$  can irritate and damage the lungs and lower resistance to respiratory infections such as influenza.



### Coarse Particulate Matter

Coarse particulate matter (PM<sub>10</sub>) refers to suspended particulate matter (PM) which is smaller than 10 microns. PM<sub>10</sub> arises from sources such as road dust, diesel soot, combustion products, construction operations, and dust storms. PM<sub>10</sub> scatters light and significantly reduces visibility. In addition, these particulates penetrate the lungs and can potentially damage the respiratory tract.

### Fine Particulate Matter

Due to recent increased concerns over health impacts related to fine particulate matter, both Federal and State standards have been created for fine particulate matter (PM<sub>2.5</sub>). The impacts of fine particulate matter primarily affect infants, children, the elderly, and those with pre-existing cardiopulmonary disease.

### Sulfur Dioxide

Sulfur dioxide (SO<sub>2</sub>) is a colorless, pungent gas belonging to the family of sulfur oxide (SO<sub>x</sub>) gases, formed primarily by combustion of sulfur-containing fossil fuels (primarily coal and oil), and during metal smelting and other industrial processes. SO<sub>2</sub> is often used interchangeably with SO<sub>x</sub>. The major health concerns associated with exposure to high concentrations of SO<sub>x</sub> are effects on breathing, respiratory illness, diminishment of pulmonary defenses, and aggravation of existing cardiovascular disease. Emissions of SO<sub>x</sub> also can damage the foliage of trees and agricultural crops. Together, SO<sub>x</sub> and NO<sub>x</sub> are the major precursors to acid rain, which is associated with the acidification of lakes and streams, and the accelerated corrosion of buildings and public monuments.

### Toxic Air Contaminants

According to Section 39655 of the California Health and Safety Code, a TAC is "an air pollutant which may cause or contribute to an increase in mortality or an increase in serious illness, or which may pose a present or potential hazard to human health." In addition, substances that have been listed as federal hazardous air pollutants (HAPs) pursuant to Section 7412 of Title 42 of the United States Code are TACs under the State's air toxics program pursuant to Section 39657 (b) of the California Health and Safety Code.

TACs of particular concern for posing health risks in California are acetaldehyde, benzene, 1-3 butadiene, carbon tetrachloride, hexavalent chromium, para-dichlorobenzene, formaldehyde, methylene chloride, perchlorethylene, and diesel particulate matter.



### Reactive Organic Gases and Volatile Organic Compounds

VOCs are organic chemical compounds with sufficiently high vapor pressure such that they will tend to vaporize and enter ambient air under standard conditions. A wide range of carbon-based molecules, such as aldehydes, ketones, and hydrocarbons are VOCs. Hydrocarbons are organic gases, liquids, or solids that are formed solely of hydrogen and carbon. A subset of VOCs is reactive in the context of O<sub>3</sub> formation at urban (and possibly regional) scales. Reactive Organic Gases (ROGs) are defined to be those VOCs that are regulated because they lead to O<sub>3</sub> formation. Both ROGs and VOCs can be emitted from the incomplete combustion of hydrocarbons or other carbon-based fuels. The major sources of VOCs are combustion engine exhaust, oil refineries, and oil-fueled power plants; other common sources are petroleum fuels, solvents, dry cleaning solutions, and paint (via evaporation).

### Sensitive Receptors

Sensitive populations are more susceptible to the effects of air pollution than the general population. Sensitive populations are referred to as sensitive receptors. Sensitive receptors include residences, schools, playgrounds, childcare centers, athletic facilities, long-term health care facilities, rehabilitation centers, convalescent centers, and retirement homes.

### Odors

Offensive odors rarely cause physical harm; however, they can be very unpleasant, leading to considerable stress among the public and often generating citizen complaints to local governments and agencies. Facilities commonly known to produce odors include wastewater treatment facilities, chemical manufacturing, painting/coating operations, feed lots/dairies, composting facilities, landfills, and transfer stations. Offensive odors rarely cause physical harm, and no requirements for their control are included in State and Federal air quality regulations. The project does not propose uses identified by the BAAQMD as sources of odors.

## Regulatory Setting

### Environmental Protection Agency

The principal air quality regulatory mechanism on the Federal level is the Clean Air Act (FCAA) and, in particular, the 1990 amendments to the FCAA and the National Ambient Air Quality Standards (NAAQS) that it establishes. These standards identify levels of air quality for “criteria” pollutants that are considered the maximum levels of ambient (background) air pollutants considered safe, with an adequate margin of safety, to protect the public health and welfare. The criteria pollutants are O<sub>3</sub>, CO, NO<sub>2</sub> (a form of NO<sub>x</sub>), SO<sub>2</sub> (a form of SO<sub>x</sub>), PM<sub>10</sub>, PM<sub>2.5</sub>, and lead (Pb); refer to DCEIR Table 3.2-2: National and California Ambient Air Quality Standards. The Environmental Protection Agency (EPA) also has regulatory and enforcement jurisdiction over emission sources beyond State waters (outer continental shelf) and those that are under the



exclusive authority of the Federal government, such as aircraft, locomotives, and interstate trucking.

#### California Air Resources Board

CARB administers the air quality policy in California. The California Ambient Air Quality Standards (CAAQS) were established in 1969 pursuant to the Mulford-Carrell Act. These standards, included with the NAAQS in DCEIR Table 3.2-2: National and California Ambient Air Quality Standards, are generally more stringent and apply to more pollutants than the NAAQS. In addition to the criteria pollutants, CAAQS have been established for visibility reducing particulates, hydrogen sulfide, and sulfates.

#### Bay Area Air Quality Management District

The BAAQMD is responsible for regulating stationary, indirect, and area sources of pollution within the Basin. The BAAQMD is one out of 35 air quality management districts that have prepared Air Quality Management Plans (AQMPs) to accomplish the 5 percent annual reduction goal required by the California Clean Air Act (CCAA). The following notes efforts by the BAAQMD to address O<sub>3</sub> and O<sub>3</sub> precursors through the implementation of the Ozone Strategy and Clean Air Plan.

#### 2005 Ozone Strategy

The BAAQMD prepared the Bay Area 2005 Ozone Strategy, which was adopted on January 4, 2006, and describes how the Basin will fulfill CCAA planning requirements for the State 1-hour O<sub>3</sub> standard and transport mitigation requirements through the proposed control strategy. The 2005 Ozone Strategy explains how the BAAQMD plans to achieve these goals with regard to O<sub>3</sub>, and also discusses related air quality issues of interest, including the public involvement process, climate change, fine particulate matter, the BAAQMD's Community Air Risk Evaluation (CARE) program, local benefits of O<sub>3</sub> control measures, the environmental review process, national O<sub>3</sub> standards, and photochemical modeling. The 2010 Bay Area Clean Air Plan updates the 2005 Ozone Strategy in accordance with the requirements of the CCAA to achieve the following:

- Implement all feasible measures to reduce O<sub>3</sub>; provide a control strategy to reduce O<sub>3</sub>, particulate matter, TACs, and greenhouse gases (GHGs) in a single, integrated plan;
- Review progress in improving air quality in recent years; and
- Establish emission control measures to be adopted or implemented in the 2010 to 2012 time-frame.

The BAAQMD adopted their CEQA Air Quality Guidelines to assist lead agencies in evaluating air quality impacts of projects and plans proposed in the Basin. The CEQA Air Quality Guidelines provide BAAQMD-recommended procedures for evaluating potential air quality and GHG



impacts during the environmental review process consistent with CEQA requirements. In addition to providing new thresholds for GHG emissions, the 2011 CEQA Air Quality Guidelines provide updated significance thresholds for criteria pollutants and supersede the BAAQMD's previous CEQA guidance titled BAAQMD CEQA Guidelines: Assessing the Air Quality Impacts of Projects and Plans (1999).

If the project is in excess of the established plan level thresholds a significant air quality impact would occur.

#### State Air Toxics Program

TACs are another group of pollutants of concern in California. There are hundreds of different types of TACs, with varying degrees of toxicity. Sources of TACs include industrial processes such as petroleum refining and chrome plating operations, commercial operations such as gasoline stations and dry cleaners, and motor vehicle engine exhaust. Public exposure to TACs can result from emissions from normal operations, as well as accidental releases of hazardous materials during upset spill conditions. Health effects of TACs include cancer, birth defects, neurological damage, and death.

#### Attainment Status

The USEPA has classified air basins as being in "attainment," "nonattainment," or "unclassified" for each criteria air pollutant, based on whether or not the NAAQS have been achieved. If an area is designated unclassified, it is because inadequate air quality data were available as a basis for a nonattainment or attainment designation.

The project area is located within a portion of the Bay Area that is considered in attainment or unclassified for most of the criteria pollutants for State and federal considerations, except for O<sub>3</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub>. Under federal regulations the area is designated an unclassified/attainment area for PM<sub>10</sub> standards (see Table 1 below).

**Table 1. San Francisco Bay Air Basin Attainment Status<sup>a</sup>**

Pollutant	State	Federal
Carbon Monoxide (CO) – 8 hour	Attainment	Attainment
Carbon Monoxide (CO) – 1 hour	Attainment	Attainment
Ozone (O <sub>3</sub> ) – 8 hour	Non-attainment	Non-Attainment
Ozone (O <sub>3</sub> ) – 1 hour	Non-attainment	N/A <sup>b</sup>
Nitrogen Dioxide (NO <sub>2</sub> ) – 1 hour	Attainment	Unclassified
Nitrogen Dioxide – Annual Arithmetic Mean	--	Attainment
Sulfur Dioxide (SO <sub>2</sub> ) – 24 hour	Attainment	Attainment
Sulfur Dioxide (SO <sub>2</sub> ) – 1 hour	Attainment	Attainment



Pollutant	State	Federal
Sulfur Dioxide (SO <sub>2</sub> ) – Annual Arithmetic Mean	--	Attainment
Particulate Matter (PM <sub>10</sub> ) – Annual Arithmetic Mean	Non-Attainment	--
Particulate Matter (PM <sub>10</sub> ) – 24 hour	Non-Attainment	Unclassified
Particulate Matter (PM <sub>2.5</sub> ) – Annual Arithmetic Mean	Non-attainment	Attainment
Particulate Matter (PM <sub>2.5</sub> ) – 24 hour	--	Non-attainment
Sulfates – 24 hour	Attainment	--
Lead – Calendar Quarter	--	Attainment
Lead – 30 Day Average	--	Attainment
Hydrogen Sulfide – 1 hour	Unclassified	--
Vinyl Chloride (Chloroethene) – 24 hour	--	--
Visibility Reducing Particulates <sup>c</sup>	Unclassified	--

Notes: N/A – Not Applicable/No Standard Exists

<sup>a</sup> In order for an area to meet a particular standard, all time tests of the applicable standard must be met. Separate designations are not made for each time component of the standard. For instance, an area might meet the annual criteria of the State PM<sub>10</sub> standard but not the 24-hour requirement. In that case, the area fails to meet the standard and would be designated nonattainment for the State PM<sub>10</sub> standard. Thus, a single designation is made for each State and Federal standard based on whether or not the area meets all the aspects of the standard.

<sup>b</sup> The Federal 1-hour ozone standard was revoked on June 15, 2005 in all areas except the 14 8-hour ozone nonattainment Early Action Compact (EAC) areas.

## Impacts Evaluation

- a) Would the Iron Horse Trail Overcrossing Project conflict with or obstruct implementation of the Bay Area Clean Air Plan, violate air quality standards, or contribute substantially to an existing or projected air quality violation?

### Short-Term Construction Emissions

The DCEIR concludes that short-term air quality impacts associated with construction activities such as grading, operation of equipment would occur (Impact 3.2-1), potentially exceeding BAAQMD significance thresholds. Thus, even with implementation of all feasible mitigation measures, construction emissions were determined to have a significant unavoidable impact. Because of the variable nature of construction activities on a day-to-day basis and because construction emissions are measured on a pounds-per-day basis, the DCEIR did not quantify emissions of air pollutants. The greatest source of air pollutant emissions during construction of a development as large as the Dublin Crossing Specific Plan would occur during site grading when heavy, diesel-fueled construction equipment is used in large numbers and fugitive dust is generated from large-scale earthmoving activities (PM<sub>10</sub> and PM<sub>2.5</sub>).



Site grading and excavation activities associated with the proposed Overcrossing project would be a temporary source of fugitive dust (PM<sub>10</sub> and PM<sub>2.5</sub>) emissions, as well as emissions from construction equipment. The short-term construction impacts of Overcrossing Project would be much less than for the DCSP, and would not cause the significant construction impacts of the DCSP to be substantially more severe than was disclosed in the Dublin Crossing Specific Plan EIR for the following reasons:

- Because the 2-acre Overcrossing Project area is very small relative to the overall Dublin Crossing Specific Plan's 189-acre area, the area subject to earth moving activities on a daily basis would be far smaller for the Overcrossing Project with substantially fewer emissions of PM<sub>10</sub> and PM<sub>2.5</sub> than would occur for grading of the Specific Plan area.
- Whereas large numbers of heavy-duty equipment would be needed to grade the Specific Plan area, the Overcrossing Project would not require heavy-duty earth moving equipment and would be graded using smaller-scale equipment (e.g., bobcats and back hoes), resulting in lower daily emissions.
- Fewer construction workers would be employed for construction of the Overcrossing Project than for development of the Specific Plan, reducing daily emissions from construction worker travel.
- Construction of the Overcrossing Project would not overlap the major grading operations for the DCSP. Daily construction-related air pollutant emissions would therefore not add to the peak construction emissions resulting from the DCSP.
- The Overcrossing Project would be required to implement the mitigation measures taken set forth in the Dublin Crossing Specific Plan EIR to reduce construction-related air pollutant emissions:

**DCEIR Mitigation Measure 3.2-1a.** Prior to issuance of any Grading Permit, the Public Works Director and the Building Official shall confirm that the Grading Plan, Building Plans, and specifications stipulate that the following basic construction mitigation measures shall be implemented for all construction projects:

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas and unpaved access roads) shall be watered two times per day.
- All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
- All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All vehicle speeds on unpaved roads shall be limited to 15 mph.
- All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible.



- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
- All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.
- A publicly visible sign with the telephone number and person to contact at the lead agency regarding dust complaints shall be posted. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

**DCEIR Mitigation Measure 3.2-1b. Additional Short-Term Construction Best**

**Management.** Prior to issuance of any Grading Permit, the Public Works Director and the Building Official shall confirm that the Grading Plan, Building Plans, and specifications stipulate that the following additional construction mitigation measures shall be implemented for all construction projects:

- All excavation, grading, and/or demolition activities shall be suspended when winds (instantaneous gusts) exceed 25 mph.
- Wind breaks (e.g., trees, fences) shall be installed on the windward side(s) of actively disturbed areas of construction.
- Vegetative ground cover (e.g., fast-germinating native grass seed) shall be planted in disturbed areas as soon as possible and watered appropriately until vegetation is established.
- All trucks and equipment, including their tires, shall be washed off prior to leaving the site.
- Site accesses to a distance of 100 feet from the paved road shall be treated with a 6- to 12-inch compacted layer of wood chips, mulch, or gravel.
- Sandbags or other erosion control measures shall be installed to prevent silt runoff to public roadways from sites with a slope greater than one percent.
- The applicant shall reduce exhaust emissions during construction and, in particular, emissions of NO<sub>x</sub>, when using construction equipment and vehicles by implementing the following measures:
  - Require the use of diesel haul trucks (e.g., material delivery trucks and soil import/export) that meet EPA 2007 model year NO<sub>x</sub> emissions requirements
  - The following note shall be included on all grading plans: During project construction, all internal combustion engines/construction, equipment operating



on the project area shall meet EPA-Certified Tier 3 emissions standards, or higher according to the following:

- January 1, 2012, to December 31, 2014: Off-road diesel-powered construction equipment greater than 50 horsepower (hp) shall meet Tier 3 off-road emissions standards. Alternatively, construction equipment shall be outfitted with BACT devices certified by CARB. Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations.
- Post-January 1, 2015: Off-road diesel-powered construction equipment greater than 50 hp shall meet the Tier 4 emission standards, where available. Alternatively, construction equipment shall be outfitted with BACT devices certified by CARB. Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations.
- The contractor and applicant, if the applicant's equipment is used, shall maintain construction equipment engines by keeping them tuned and regularly serviced to minimize exhaust emissions.
- Utilize existing power sources (i.e., power poles) when available. This measure would minimize the use of higher polluting gas or diesel generators.
- Construction-related equipment, including heavy-duty equipment, motor vehicles, and portable equipment, shall be turned off when not in use for more than five minutes.
- Use low VOC (i.e., ROG) coatings beyond the local requirements (i.e., Regulation 8, Rule 3: Architectural Coatings).
- Require that all construction equipment, diesel trucks, and generators be equipped with Best Available Control Technology for emission reductions of NO<sub>x</sub> and PM.

#### Long-Term Operational Emissions – Clean Air Plan Consistency

The DCEIR concluded that buildout of the DCSP is consistent with population growth assumptions in the 2010 Bay Area Clean Air Plan, is anticipated to result in reduced Vehicle Miles Travelled (VMT) compared to population growth and is consistent with several of the Clean Air Plan's Control Measures. Operation of the Overcrossing Project would not increase population or vehicle miles traveled. The Overcrossing project facilitates non-motorized travel and would not result in additional long-term emissions or any new or substantially more significant impacts.



### Energy Source Emissions

The DCEIR concludes that energy source emissions would be generated as a result of electricity and natural gas (non-hearth) usage including space heating and cooling, water heating, ventilation, lighting, appliances, and electronics. Ongoing operations of Iron Horse Trail Dublin Boulevard Overcrossing project would involve lighting of the bridge crossing (no changes are proposed in relation to trail lighting. The energy consumption and resulting air pollutant emissions of such lighting would be extremely small in relation to the energy demands of the entire Dublin Crossing Specific Plan area. As shown in Table 3.2-6 of the DCEIR, energy use is not a major source of air pollutant emissions (1.2 to 11.0 percent of emissions, depending on pollutant). The electrical consumption associated with bridge lighting would not therefore result in the significant unavoidable operational air pollutant emissions impacts disclosed in the DCEIR being substantially more severe.

### Mobile Source Emissions

Ongoing operation of the Overcrossing Project would involve pedestrians and bicyclist using the bridge crossing and would not result in any mobile source emissions. By implementing DCEIR Mitigation Measure 3.12-3 requiring construction of a bridge crossing for the Iron Horse Trail over Dublin Boulevard, the Overcrossing Project would reduce vehicular delay along Dublin Boulevard and thereby result in a slight decrease in mobile source emissions.

**b) Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under applicable federal or state ambient air quality?**

The DCEIR concluded that the Dublin Crossing Specific Plan would result in a significant unavoidable impact from both construction-related and long-term operational emissions, and the Specific Plan's contribution to significant cumulative impacts would therefore be considered to be cumulatively considerable. As discussed above, the Overcrossing Project would result in only very minor increases of criteria pollutants during construction and ongoing operations. The Overcrossing Project would also result in a slight decrease in mobile source emissions by reducing vehicular delay along Dublin Boulevard. Therefore, the proposed Overcrossing Project would not result in the cumulatively considerable contribution to cumulative air quality impacts disclosed in the DCEIR being substantially more severe.

**c) Would the project expose sensitive receptors to substantial pollutant concentrations?**

The BAAQMD requires that projects be analyzed for the potential to cause localized CO hotspots. Per the BAAQMD CO screening guidelines, a project would have CO impacts if the following were to occur:

- Project traffic would impact intersections or roadway links operating at level of service (LOS) D, E or F or would cause LOS to decline to D, E or F.



- Project traffic would increase traffic volumes on nearby roadways by 10 percent or more.
- Project would contribute to CO concentrations exceeding the State Ambient Air Quality Standard of 9 parts per million (ppm) averaged over 8 hours and 20 ppm for one hour.

The analysis conducted in the DCEIR concluded that CO concentrations at area intersections would be no greater than 16 percent of the applicable 1-hour standard for CO and no greater than 24.9 percent of the applicable 8-hour standard with development of the entire Dublin Crossing Specific Plan. Recognizing that traffic and resulting CO emissions from the proposed Overcrossing Project would be far less than for the Specific Plan project, the Overcrossing Project would not result in a new or substantially more severe impact compared to the impacts disclosed in the Dublin Crossing Specific Plan.

**d) Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?**

Construction of the proposed project would allow some uses which generate airborne odors, such as during application of coatings to the bridge structure, which could be considered to generate odors; however, limited exposure and compliance with applicable regulatory requirements during construction will ensure that any impact is less than significant. These potential odors generated during construction would be short-term, intermittent and would not result in a new or substantially more severe significant impact.



## Biological Resources

ENVIRONMENTAL IMPACTS Issues	(1) New or Substantially More Severe Significant Impact	(2) New Information Indicates that a Mitigation Measure or Alternative that was Previously Found to be Infeasible or Declined by Project Proponent now Proposed	(3) New or Substantially More Severe Significant Impact Avoided with Mitigation Incorporated	(4) No New or Substantially More Severe Significant Impact
<b>4. BIOLOGICAL RESOURCES — Would the project:</b>				
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 the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Have a substantial adverse effect on state or federally protected wetlands through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Conflict with City of Dublin Tree Regulations protecting biological resources?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>



ENVIRONMENTAL IMPACTS Issues	(1) New or Substantially More Severe Significant Impact	(2) New Information Indicates that a Mitigation Measure or Alternative that was Previously Found to be Infeasible or Declined by Project Proponent now Proposed	(3) New or Substantially More Severe Significant Impact Avoided with Mitigation Incorporated	(4) No New or Substantially More Severe Significant Impact
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

### Study Methods and Data Sources

Biologists Julia King and Patricia Berryhill from Metis Environmental Group conducted reconnaissance-level surveys of the project area on February 22, March 6, and August 18, 2018 and on September 12, 2019. In addition, a search of the California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDB) was conducted and the following technical reports prepared for the Dublin Crossing Specific Plan EIR were reviewed:

- Cardno Entrix March 6, 2012, reconnaissance-level survey.
- Jones & Stokes 1995, special-status plant and animal surveys for Camp Parks.
- Jones & Stokes 2006, surveys for vernal pool invertebrates, California red-legged frog, burrowing owls, San Joaquin kit foxes, and other sensitive species including raptors and loggerhead shrikes.
- Steele, K., and D. Petersen. 2005. Floristic survey of Parks Reserve Forces Training Area, Alameda and Contra Counties, California. August.
- Booz Allen Hamilton. 2004. Parks Reserve Forces Training Area, Biological Field Surveys. Prepared for Parks Reserve Forces Training Area, Directorate of Public Works. March 2004. 98 pp + Appendices.

Appendix B includes a formal wetland delineation that was prepared for the portion of the project area located south of Dublin Boulevard. The delineation was submitted to the U.S. Army Corps of Engineers. Staff from the Corps of Engineers have visited the site and a Preliminary Jurisdictional Determination has been issued (Figure 6).



## Plant Communities and Habitats

North of Dublin Boulevard, the project area is within the footprint of a community park being developed with turf and landscape plantings. Within the park area, the Chabot Channel and adjacent riparian habitats are subject to ecological restoration treatments during park development. The channel bisects the project area. Ecological restoration efforts are on-going and will result in riparian habitat directly adjacent on both sides of the channel and will include oaks, willows and native grasses adjacent to Chabot Channel. Restoration activities that would occur within the channel and riparian areas are addressed in the DCEIR and the restoration activities would comply with DCEIR Mitigation Measure 3.3-1:

- **DCEIR Mitigation Measure 3.3-1: Prepare and Implement a Wetland Mitigation Plan.** Prior to commencing any activities that would impact wetlands or waters habitat, the project applicant shall obtain all required public agency permits and shall prepare a wetland mitigation plan that ensures no-net-loss of wetland and waters habitat and is approved by the City and applicable resource agencies. The wetland mitigation plan shall include measures for avoidance, minimization, and compensation for wetland impacts. Avoidance and minimization measures may include the designation of buffers around wetland features to be avoided, or project design measures, such as free-span bridges. Compensation measures shall include the preservation and/or creation of wetland or waters. The final mitigation ratios (the amount of wetlands and waters created or preserved compared to the amount impacted) shall be determined by the applicable resource agencies and the City. The wetland mitigation and monitoring plan shall include the following:
  - Descriptions of the wetland types, and their expected functions and values;
  - Performance standards and monitoring protocol to ensure the success of the mitigation wetlands over a period to be determined by the resource agencies;
  - Engineering plans showing the location, size and configuration of wetlands to be created or restored;
  - An implementation schedule showing that construction or preservation of mitigation areas shall commence prior to or concurrently with the initiation of construction; and
  - A description of legal protection measures for the preserved wetlands (i.e., dedication of fee title, conservation easement, and/or an endowment held by an approved conservation organization, government agency or mitigation bank).

South of Dublin Boulevard the following habitats were identified during field surveys conducted in 2018 and 2019:

**Non-Native Grassland and Ruderal Vegetation.** This habitat type occurs over the majority of the southerly portion of the project area on both sides of the paved trail. This habitat is



dominated by common invasive weed species such as rip-gut brome (*Bromus diandrus*), wild oat (*Avena fatua*), Italian rye grass (*Festuca perennis*), winter vetch (*Vicia sativa*), and prickly ox-tongue (*Helminthotheca echioides*). Landscape bark is spread directly adjacent to the edge of the paved Iron Horse Trail.

**Oak Trees.** A row of 10- to 15-foot tall valley oak (*Quercus lobata*) trees occurs along the southwest edge of the Iron Horse Trail, extending south from Dublin Boulevard. These trees are all less than 10 inches in diameter at breast height (DBH) as measured at approximately four feet above the ground. A single ornamental palm tree occurs on the northeastern side of the Iron Horse Trail levee near the concrete retaining walls associated with the residential development to the east.

**Seasonal Wetlands.** Although there are no seasonal wetland features in the project area, biologists mapped seasonal wetlands adjacent to the Iron Horse Trail south of Dublin Boulevard. These wetland areas are shown in the Wetland Delineation provided in Appendix B and are populated with annual herbaceous vegetation species typically found within ephemeral depressions in California. With a slightly alkaline soil underlying the area, the wetland vegetation skews toward alkali tolerant plants species. Saltgrass (*Distichlis spicata*), a dominant perennial species within the study area and alkali heath (*Frankenia salina*), a less common subshrub measuring less than 10 inches high, were observed at the wetland data points. Other species observed included spike rush (*Eleocharis macrostachya*), umbrella sedge (*Cyperus eragrostis*), creeping wild rye (*Lemus tritichoides*), cocklebur (*Xanthium strumarium*), rabbit's foot grass (*Polypogon monosperinus*), and prickly ox-tongue (*Helminthotheca echioides*).

### **Special Status Species with the Potential to Occur in the Project Area**

Plant species and animal species afforded protections under State and Federal laws and are referred to as having "Special Status." Appendix A includes a summary evaluation of special status species that could occur in the project area based on direct observation of existing conditions observed in the field, findings in the DCEIR, and a query of the CNDDDB. Each of the species or groups of species discussed below is also addressed in the DCEIR and in Appendix C of the DCEIR.

**Western Burrowing Owl.** The western burrowing owl is a ground-nesting owl species that is known from the DCSP area and annual grassland habitats addressed in the DCEIR. The project area north of Dublin Boulevard developed as a community park would not support burrowing owls. However, the non-native annual grassland and ruderal vegetation within the project area located south of Dublin Boulevard is suitable for burrowing owls. Burrowing owls were not observed in the project area during field surveys conducted in February, March and August 2018.

**Special Status Plants.** Congdon's tarplant has the potential to occur in the project area south of Dublin Boulevard. This Special Status plant species was also found near the BART facility to the



south of the project area in 2000 but it was not observed in the project area during field surveys conducted in August of 2018 and September 2019.

### Special Status Habitats in the Project Area

Special status habitats in the project area include the Chabot Channel and the associated riparian habitat being restored adjacent to the channel within the Don Biddle community park north of Dublin Boulevard.

The oak trees located in the project area south of Dublin Boulevard do not meet the definition of Heritage Trees, as described in Section 5.60 of the City of Dublin Municipal Code and are not considered to be special status species.

### Regulatory Setting

Regulations that apply to individual species and habitats in the project area are summarized below.

**Federal and California Endangered Species Acts.** The Federal Endangered Species Act (FESA) of 1973 prohibits federal agencies from authorizing, permitting, or funding any action that would jeopardize the continued existence of a plant or animal species listed or a candidate for listing as Threatened or Endangered under the ESA. If a federal agency is involved with a proposed action or project that may adversely affect a listed plant or animal, that agency must enter into consultation with the United States Fish and Wildlife Services (USFWS) under Section 7(a)(2) of the FESA. Individuals, corporations, and state or local agencies with proposed actions or projects that do not require authorizing, permitting, or funding from a federal agency but that may result in the "take" of listed species or candidate species are required to apply to the USFWS for a Section 10(a) incidental take permit.

The State of California enacted similar laws to the FESA, the California Native Plant Protection Act (NPPA) in 1977 and the California Endangered Species Act (CESA) in 1984. The CESA expanded upon the original NPPA and enhanced legal protection for plants, but the NPPA remains part of the California Fish and Wildlife Code. To align with the FESA, CESA created the categories of "threatened" and "endangered" species. The State converted all animal species listed as "rare" under the FESA into the CESA as threatened species but did not do so for rare plants. Thus, these laws provide the legal framework for protection of California-listed rare, threatened, and endangered plant and animal species. The California Department of Fish and Wildlife (CDFW) implements NPPA and CESA, and its Wildlife and Habitat Data Analysis Branch maintain the California Natural Diversity Database, a computerized inventory of information on the general location and status of California's rarest plants, animals, and natural communities.

**Migratory Bird Treaty Act.** The Migratory Bird Treaty Act (MBTA) implements international treaties between the United States and other nations devised to protect migratory birds, their parts, eggs, and nests from activities such as hunting, pursuing, capturing, killing, selling, and



shipping, unless expressly authorized in the regulations or by permit. The USFWS administers the MBTA. The State of California has incorporated the protection of birds of prey in Sections 3800, 3513, and 3503.5 of the Fish and Game Code (FGC).

All raptors and their nests are protected from take or disturbance under the MBTA (16 United States Code [USC], section 703, et seq.) and California statute (FGC section 3503.5). The golden eagle and bald eagle are also afforded additional protection under the Eagle Protection Act, amended in 1973 (16 USC, section 669, et seq.).

**Waters of the United States.** The United States Army Corp of Engineers regulates “Waters of the United States” under Section 404 of the Clean Water Act (CWA). Waters of the U.S. are defined in the Code of Federal Regulations as waters susceptible to use in commerce, including interstate waters and wetlands, all other waters (intrastate waterbodies, including wetlands), and their tributaries (33 CFR 328.3). Potential wetland areas, according to the three criteria used to delineate wetlands as defined in the Corps of Engineers Wetlands Delineation Manual (Environmental Laboratory 1987), are identified by the presence of (1) hydrophytic vegetation, (2) hydric soils, and (3) wetland hydrology.

Areas that are inundated at a sufficient depth and for a sufficient duration to exclude growth of hydrophytic vegetation are subject to Section 404 jurisdiction as “other waters” and are often characterized by an ordinary high-water mark, and herein referred to as non-wetland waters. Non-wetland waters, for example, generally include lakes, rivers, and streams. The placement of fill material into Waters of the U.S. generally requires an individual or nationwide permit from the Corps under Section 404 of the CWA.

**Waters of the State.** The term “Waters of the State” is defined by the Porter-Cologne Act as “any surface water or groundwater, including saline waters, within the boundaries of the state.” The RWQCB protects all waters in its regulatory scope and has special responsibility for wetlands, riparian areas, and headwaters. These waterbodies have high resource value, are vulnerable to filling, and are not systematically protected by other programs. RWQCB jurisdiction includes wetlands and waters that may not be regulated by the Corps under Section 404.

Waters of the State are regulated by the RWQCB under the State Water Quality Certification Program which regulates discharges of fill and dredged material under Section 401 of the CWA and the Porter-Cologne Water Quality Control Act. Projects that require a Corps permit or fall under other federal jurisdiction and have the potential to impact Waters of the State are required to comply with the terms of the Water Quality Certification determination. If a proposed project does not require a federal permit but does involve dredge or fill activities that may result in a discharge to Waters of the State, the RWQCB has the option to regulate the dredge and fill activities under its state authority in the form of Waste Discharge Requirements.

**Habitat Conservation Plan/Natural Community Conservation Plan.** The Eastern Alameda County Conservation Strategy (EACCS) is a document which is intended help planners protect



endangered species by working with landowners to implement long term conservation stewardship to offset potential impacts associated with urban and agricultural development. The project area does not fall within the boundaries of the EACCS.

### Impacts Evaluation

The following mitigation measures established in the DCEIR would apply to the Overcrossing Project:

- **DCEIR Mitigation Measure 3.3-2a: Conduct a Floristic Survey and Consult with CDFG and USFWS if State or Federally Listed Plants are Found and Comply with Incidental Take Permits.** The project applicant shall retain a qualified botanist to conduct rare plant surveys within the construction zone for Congdon's tarplant or other species with potential habitat within the project area during the appropriate time of year in accordance with agency protocols. These plant surveys shall be conducted in accordance with the 2009 California Department of Fish and Game and United States Fish and Wildlife Service rare plant survey protocols. The results of the survey shall be summarized in a report and submitted to CDFW and USFWS and would be valid for two years. If no special-status plants are located during the surveys, no further mitigation measures would be required. If any federal or state plant species are found during the rare plant surveys, the project applicant shall consult with the CDFW and USFWS to obtain incidental take permits under Section 2081 of the CESA and either Section 7 or 10 of the FESA. Consultation with USFWS under Section 7 of the FESA could occur as part of the CWA Section 404 permit process as part of the wetland mitigation, described under Mitigation Measure MM 3.3-1.
- **DCEIR Mitigation Measure 3.3-2b: Develop and Implement Mitigation in Consultation with CDFW if Other Special Status Plant Species Are Found.** If special-status plant species (excluding federal or state listed plants) are found during the rare plant surveys, the project applicant shall notify the CDFW. A mitigation plan shall be developed in consultation with and approved by the CDFW and the City prior to the commencement of any activities that would impact any special status plants. The mitigation plan shall include measures such as transplanting plants, collecting seed or clippings and replanting species in an on-site location, if feasible or other location approved by Department of Fish and Game.
- **DCEIR Mitigation Measure 3.3-3a: Conduct a Burrowing Owl Survey and Impact Assessment.** The project applicant shall retain a qualified biologist to conduct a California burrowing owls surveys and impact assessment following the 2012 California Department of Fish and Game Staff Report on Burrowing Owl Mitigation (CDFW 2012) or as updated at the time of the implementation of the proposed project. The report(s) shall be submitted to California Department of Fish and Game as indicated in the CDFW 2012 Staff Report. If it is determined that project activities may result in impacts to



nesting, occupied, and satellite burrows and/or burrowing owl habitat, the project applicant shall consult with the CDFW and develop a detailed mitigation plan such that the habitat acreage, number of burrows, and burrowing owl impacted are replaced. The mitigation plan shall be based on the requirements set forth in Appendix A of the CDFW 2012 Staff Report on Burrowing Owl Mitigation.

- **DCEIR Mitigation Measure 3.3-3b: Implement Avoidance Measures.** If California burrowing owl are located within the project area and direct impacts can be avoided, the project applicant shall implement the following avoidance measures during all phases of construction to reduce or eliminate potential impacts to California burrowing owls.
  - Avoid disturbing occupied burrows during the nesting period, from 1 February through 31 August.
  - Avoid impacting burrows occupied during the non-breeding season by migratory or non-migratory resident burrowing owls.
  - Avoid direct destruction of burrows through chaining (dragging a heavy chain over an area to remove shrubs), disking, cultivation, and urban, industrial, or agricultural development.
  - Develop and implement a worker awareness program to increase the on-site worker's recognition of and commitment to burrowing owl protection.
  - Place visible markers near burrows to ensure that farm equipment and other machinery does not collapse burrows.
  - Do not fumigate, use treated bait or other means of poisoning nuisance animals in areas where burrowing owls are known or suspected to occur (e.g., sites observed with nesting owls, designated use areas).
  - Restrict the use of treated grain to poison mammals to the months of January and February.
- **DCEIR Mitigation Measure 3.3-3c: Conduct Burrow Exclusion.** In the event that California burrowing owls are located within the project area, the project applicant shall conduct a Burrowing Owl Relocation Plan. If avoidance of burrowing owl or their burrows is not possible, the project applicant in consultation with the California Department of Fish and Wildlife shall prepare a Burrowing Owl Relocation Plan as indicated and following the CDFW 2012 Staff Report. Monitoring of the excluded owls shall be carried out as per the California Department of Fish and Game 2012 Staff Report. Mitigation for permanent impacts to nesting, occupied, and satellite burrow and/or burrowing owls shall be developed based on the CDFW 2012 Staff Report on Burrowing Owl Mitigation.



- a) Would the proposed project 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 the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?

During seasonal surveys of the project area South of Dublin Boulevard in February, March and August of 2018 and in September 2019 there were no burrowing owls observed. However, should the species colonize the annual grassland/ruderal habitat in the project area in the interim period between when the project is approved and when construction is initiated, Mitigation Measure 3.3-3 from the DCEIR would be implemented, reducing the impact to a level that is less than significant.

**Conclusion.** Because the same types of impacts to special status species that were analyzed for the DCEIR would occur as part of the Overcrossing Project and the same mitigation measures will be implemented, a new or substantially more severe significant impact would be avoided with implementation of DCEIR in Mitigation Measure 3.3-2a and 3.3-2b, and 3.3-3a-c, above.

- b) Would the proposed project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?

North of Dublin Boulevard, the project area includes a Community Park within which the Chabot Channel and associated riparian habitat restoration adjacent to the channel. The channel and riparian within Community Park are considered to be sensitive habitat types and the Overcrossing Project is intended to be designed and constructed to entirely avoid these habitats. The graduated ramp structure to connect the free-span bridge with at grade elevations north of Dublin Boulevard would not require excavation or encroachment onto the sensitive restored habitats in order for construction to occur. The ramp design would span the restored Chabot Channel and adjacent restored riparian habitat. However, if the channel and vegetation could not be avoided for any reason, Mitigation Measure 3.3-1 from the DCEIR (above) would apply and would reduce the impact to a level considered less than significant.

There are no sensitive natural communities or habitats within the project area south of Dublin Boulevard.

There would be no physical change and no impacts to sensitive natural communities or habitats in the project area during construction of the overcrossing structure or as a result of use of the structure.

**Conclusion.** As shown in Figure 5 and Figure 6, there are no wetlands in the project area. Seasonal wetlands would not be impacted during construction and operation of the Overcrossing Project, no new or substantially more severe significant impact would occur.



- c) Would the proposed project have a substantial adverse effect on state or federally protected wetlands through direct removal, filling, hydrological interruption, or other means?

The design of the ramps connecting the free-span bridge to the Iron Horse Trail north of Dublin Boulevard would span Chabot Channel and associated restored riparian habitat included in the Don Biddle Community Park. There are no wetlands or waters in the project area South of Dublin Boulevard. Wetlands or waters of the U.S. would not be impacted as a result of construction of foundations and footings to support the free-span bridge structure.

**Conclusion.** No new or substantially more severe significant impact would occur.

- 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?

Currently, terrestrial species that occur in the area may use the project area to gain access to habitats to the north and south, however doing so would require crossing Dublin Boulevard at grade or crossing I-580. With development of the Overcrossing Project terrestrial species that occur in the area would still need to cross Dublin Boulevard at grade.

The Chabot Channel and associated restored riparian habitats provide cover for localized animal movement. The design of the ramps connecting the bridge structure north of Dublin Boulevard includes spanning these habitats with no physical changes to the substrate. Therefore, the proposed project would have no impact in relation to wildlife movement during construction or subsequent use of the overcrossing.

**Conclusion.** No new or substantially more severe significant impact would occur.

- e) Conflict with City of Dublin Tree Regulations protecting biological resources?

The valley oak trees planted on the west side of the Iron Horse Trail do not meet the City of Dublin heritage tree ordinance definition as their size is smaller than specified in the City Code, nor were these trees planted as part of a mitigation requirement or as specified in subsections 1, 2 or 3 of Section 5.60.040 of the City of Dublin municipal code which defines heritage trees. The valley oak trees within the project are all less than approximately 10 inches in diameter at breast height, thus not meeting the minimum size requirement in the code, which protects those trees 24 inches and greater in diameter at breast height.

The project area is not located within the boundaries of any Habitat Conservation Plan.

**Conclusion.** Because no heritage trees are located within the project area and the project area is not located within the boundaries of any Habitat Conservation Plan, no new or substantially more severe significant impact would occur.



## Cultural and Tribal Cultural Resources

ENVIRONMENTAL IMPACTS Issues	(1) New or Substantially More Severe Significant Impact	(2) New Information indicates that a Mitigation Measure or Alternatives that was Previously found to be Infeasible or Declined by Project is Proponent now Proposed	(3) New or Substantially More Severe Significant Impact Avoided with Mitigation Incorporated	(4) No New or Substantially More Severe Significant Impact
<b>5. CULTURAL AND TRIBAL CULTURAL RESOURCES — Would the project:</b>				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?				<input checked="" type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?				<input checked="" type="checkbox"/>
c) Disturb any human remains, including those interred outside of dedicated cemeteries?				<input checked="" type="checkbox"/>
d) 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); or  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				<input checked="" type="checkbox"/>



ENVIRONMENTAL IMPACTS Issues	(1) New or Substantially More Severe Significant Impact	(2) New Information indicates that a Mitigation Measure or Alternatives that was Previously found to be Infeasible or Declined by Project is Proponent now Proposed	(3) New or Substantially More Severe Significant Impact Avoided with Mitigation Incorporated	(4) No New or Substantially More Severe Significant Impact
Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.				

### Existing Setting

Mission records and ethnographies identify the Native Americans living in the Pleasanton area at the time of European contact in the latter half of the 18th century as members of various groups that are now referred to collectively as Ohlone. On the basis of linguistic evidence, it has been suggested that the ancestors of the Ohlone arrived in the San Francisco Bay area about A.D. 500, having moved south and west from the Sacramento-San Joaquin Delta region. Linguistic evidence has been interpreted to indicate that prior to about A.D. 500, speakers of the Hokan language occupied territories that included the project area until the ancestral Ohlone displaced them (Levy 1978).

### Ethnographic Context

At the time of initial contact with European explorers (1772), the project area was occupied by the Ohlone, and more specifically an Ohlone triblet, known as Pelnien, of 300 to 500 who inhabited semi-permanent villages and seasonal campsites (Kroeber 1932; Levy 1978). Although ethnographic information about the Pelnien is sparse, they may have shared the resources of the former Willow Marsh, located in the low-lying area between Dublin and Pleasanton, with the nearby Seunen and Souyen Ohlone tribal groups. This marsh was an important source for seasonal foods such as migratory waterfowl and shorebirds, which provided protein-rich supplements to the typical aboriginal diet of greens, roots and bulbs, seeds, and acorns (Levy 1978).



The arrival of the Spanish led to the rapid demise of native California populations. Diseases, declining birth rates, and the effects of the mission system served to eradicate the aboriginal life ways (which are currently experiencing resurgence among Ohlone descendants). Brought into the missions, the surviving Ohlone along with former neighboring groups of Esselen, Yokuts, and Miwok were transformed from hunters and gatherers into agricultural laborers (Cambra et al. 1996; Levy 1978; Shoup and Milliken 1999).

#### Project Area Records Search

A literature review and records search was conducted by Patrick Allen, Staff Archaeologist, on June 14, 2018 at the Northwest Information Center (NWIC) housed at Sonoma State University, Rohnert Park (IC File Number 17-3021). The records search area included the project area as well as an additional half-mile radius. The purpose of the records search was to identify any known cultural resources within the immediate vicinity of the project area. The records search also included a review of the Office of Historic Preservation (OHP) Archaeological Determination of Eligibility and the OHP Directory of Historic Properties Data File.

The records search indicated that no prehistoric or historical archaeological resources have been previously recorded within or within a half-mile radius of the project area. A total of 29 historical built-environment resources have been previously recorded within a half-mile radius of the project area; however, none of these resources are located within the project area. These resources include a section of the Southern Pacific Railroad, and buildings and structures associated with the Parks Reserve Forces Training Area, commonly known as Camp Parks. The section of the Southern Pacific Railroad, P-01-001783, is located less than one tenth of a mile northwest of the project area, it no longer extends through the project area.

The records search also indicated that a total of 150 cultural resource studies have been conducted within a half-mile radius of the project area (see full list in Appendix A). Of these 150 studies, 10 intersect or include portions of the project area (see Table 2).

**Table 2. Previous Cultural Resource Studies within the Project Area**

Report No.	Year	Author(s)	Title
S-000727	1977	Miley Holman and David Chavez	An Archaeological Reconnaissance of Two New Proposed Waste Water Pipeline Routes, Livermore-Amador Valley Water Management Agency, Alameda County, California
S-016307	1994	Alison MacDougall	Cultural Resource Investigation of PG&E's Proposed Willow Pass Substation Addition, Willow Pass Tap, East Dublin BART Dedicated Substation, and Castro Valley Substation Addition, Contra Costa and Alameda Counties, California
S-017993	1995	Brian Hatoff, Barb Voss, Sharon Waetcher, Stephen Wee, Vance Bente	Cultural Resources Inventory Report for the Proposed Mojave Northward Expansion Project



Report No.	Year	Author(s)	Title
S-025313	2002	Rand Herbert, Bryan Larson, Jessica Herrick, Amanda Blosser, Andrew Walters, and Eric Johnson	Final Report: National Register of Historic Places, Inventory and Evaluation of Previously Unevaluated World War II and Cold War Era Buildings, Parks Reserve Forces Training Area, Alameda and Contra Costa Counties, California
S-026071	1998	Shahira Ashkar and Dana McGowan	Parks Reserve Forces Training Area, Built Environment Inventory and Evaluation
S-026096	1981	Earth Metrics Incorporated	Historic Property Survey Report for the Reactivation and Development Plans, Camp Parks, Pleasanton, CA
S-028826	2001	Damon Mark Haydu	A Cultural Resources Study of Portions of the Training Area and Cantonment Area Within Camp Parks (PRFTA), Alameda and Contra Costa Counties, California
S-028835	2004	Jack Meyer and Graham Dalldorf	Geoarchaeological Investigation in the Parks Reserve Forces Training Area, Alameda and Contra Costa Counties, California.
S-029314	2004	Christopher Caputo	Archaeological Survey Report for Portions of the Training Area, Parks RFTA, Alameda and Contra Costa Counties, California.
S-023385	2000	Colin I. Busby and Stuart A. Guedon	Cultural Resources Assessment for an Extension of the Iron Horse Trail Between Dougherty Road and Dublin BART Station, City of Dublin, Alameda County (letter report)

There are no resources listed on the OHP directory within the project area. Numerous industrial buildings and structures associated with National Aeronautics and Space Administration (NASA) and the Parks Reserve Forces Training Area, located less than one tenth of a mile from the project area, are listed in the OHP directory.

#### Historic Topographic Map and Aerial Review

In addition to the records search, a review was conducted of the historical topographic maps and historic aerials that depict the project area. The Fairchild Aerial Surveys 1938 aerials (Flight C-5750) depict the project area in an undeveloped region with the Southern Pacific Railroad running northwest to southeast. The 1906 United States Geologic Survey (USGS) Pleasanton 15-minute quadrangle map also depicts the project area as undeveloped with only a few roads in the general vicinity. The 1953 USGS Dublin 7.5-minute map shows the project area atop the existing Southern Pacific Railroad line and crossing the convergence of two unnamed seasonal drainages. The 1953 Dublin map also depicts numerous rectangular industrial style buildings to the north/northwest of the project area. These buildings are likely portions of the Parks Reserve Forces Training Area which was commissioned in January of 1943 (<http://www.usar.army.mil/Commands/US-Army-Reserve-Command-USARC/Camp-Parks-Main/Camp-Parks/>).



A review of the 1950 United States Department of Agriculture Stabilization and Conservation Service survey for Flight BUT-1950 shows the project area south of Camp Parks with small buildings located in between the northern edge of Highway 580 and the diagonal tracks of the Southern Pacific Railroad. The 1961 Dublin 7.5-minute map shows the project area intersecting the Southern Pacific Railroad line and crossing an unnamed seasonal drainage. In addition, the 1961 Dublin quadrangle illustrates numerous buildings associated with NASA located to the northwest of the project area. The Cartwright Aerial Survey from 1965 (Flight CAS-65-130) depicts the project area to the southeast of Camp Parks with the parcels directly surrounding the project area still mostly undeveloped. The 1980 photo revised Dublin topographic quadrangle map indicates that while the majority of the Dublin area has been developed by 1980, the project area remained undeveloped.

### **Tribal Coordination and Consultation**

A request for information on sacred sites or tribal cultural resources (e.g., traditional use or gathering area, place of religious or sacred activity, etc.) within the immediate vicinity of the project area was sent to the Native American Heritage Commission (NAHC) on June 15, 2018 along with a request for a list of Native American tribal representatives with heritage ties to the area. The NAHC responded on June 25, 2018, stating that the Sacred Lands File search was completed with negative results, indicating no resources were known to be present within or near the project site (Appendix C). However, the NAHC did state that the absence of specific site information in the SLF does not indicate the absence of Native American tribal cultural resources. As such, the NAHC recommended that six Native American representatives be contacted to elicit information regarding cultural resource issues related to the project.

Scoping letters were sent via email on July 12, 2018 to all six recommended Native American representatives. Since no written response had been received, follow up phone calls were placed to each representative on July 26, 2018. Ms. Perez, Northern Valley Yokut, indicated that typically railroad tracks follow traditional Native trails and as such she recommends a Native American monitor be present during ground disturbing activities. She also requested a copy of the final report. Ms. Sayers, Indian Canyon Mutsun Band of Costanoan, indicated she has no knowledge of the area or its potential sensitivity. No other responses were received as a result of the outreach efforts. Subsequently, messages and follow up emails describing the project were sent to the contacts who were unable to be reached by phone.

### **Regulatory Setting**

The National Historic Preservation Act of 1966 (NHPA) established the National Register of Historic Places (National Register), which is the official register of designated historic places. The National Register is administered by the National Park Service, and includes listings of buildings, structures, sites, objects, and districts that possess historical, architectural, engineering, archaeological, or cultural significance at the national, state, or local level.



To be eligible for the National Register, a property must be significant under one or more of the following criteria pursuant to 36 Code of Federal Regulations Part 60:

- A. Properties that are associated with events that have made a significant contribution to the broad patterns of our history;
- B. Properties that are associated with the lives of persons significant in our past;
- C. Properties that embody the distinctive characteristics of a type, period or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- D. Properties that have yielded, or may be likely to yield, information important in prehistory or history.

In addition to meeting one or more of the aforementioned criteria, an eligible property must also possess historic “integrity,” which is “the ability of a property to convey its significance.” The National Register criteria recognize seven qualities that define integrity: location, design, setting, materials, workmanship, feeling, and association.

Structures, sites, buildings, districts, and objects over 50 years of age can be listed in the National Register as significant historical resources. Properties under 50 years of age that are of exceptional importance or are contributors to a district can also be included in the National Register. Properties listed in or eligible for listing in the National Register are also eligible for listing in the California Register of Historic Resources (described below), and as such, are considered historical resources for CEQA purposes.

The California Register of Historic Resources (CRHR) is the official state-level list of properties, structures, districts, and objects significant at the local, state, or national level. CRHR-eligible properties are considered to be historical resources under CEQA and must have significance under at least one of the four criteria presented below. A property may be considered a historic resource if it:

- (1) is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
- (2) is associated with the lives of persons important in our past;
- (3) 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
- (4) has yielded, or may be likely to yield, information important in prehistory or history.



In order to meet one or more of these criteria, a cultural resource must possess integrity to qualify for listing in the CRHR. Integrity is generally evaluated with reference to qualities including location, design, materials, workmanship, setting, feeling, and association. A potentially eligible site must retain the integrity of the values that would make it significant. Typically, integrity is indicated by evidence of the preservation of the contextual association of artifacts, ecofacts, and features within the archaeological matrix (Criterion 4) or the retention of the features that maintain contextual association with historical developments or personages that render them significant (Criteria 1, 2, or 3). Evidence of the preservation of this context is typically determined by stratigraphic analysis and analysis of diagnostic artifacts and other temporal data (e.g., obsidian hydration, radiocarbon assay) to ascertain depositional integrity or by the level of preservation of historic and architectural features that associate a property with significant events, personages, or styles.

Integrity refers both to the authenticity of a property's historic identity, as shown by the survival of physical characteristics that existed during its historic period and to the ability of the property to convey its significance. This is often not an all-or-nothing scenario (determinations can be subjective); however, the final judgment must be based on the relationship between a property's features and its significance. Section 15064.5 of the CEQA Guidelines indicates a project may have a significant environmental effect if it causes "substantial adverse change" in the significance of an "historical resource" or a "unique archaeological resource" as defined or referenced in CEQA Guidelines Section 15064.5[b, c] (revised October 26, 1998). Such changes include "physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired" (CEQA Guidelines 1998 Section 15064.5 [b]).

## Impacts Evaluation

a,b) Would the project cause a substantial adverse change in the significance of a historical resource or an archeological resource as defined in CEQA Guidelines Sections 15064 or 15064.5?

### Project Area North of Dublin Boulevard

The DCEIR identified 12 cultural resources within the DCSP area. These resources were all components of Camp Parks and as such were evaluated using the National Register of Historic Places (NRHP) criteria. Only one of the resources, the Camp Parks entrance sign (P-01-010333), was determined to be eligible for listing on the NRHP by the State Historical Preservation Office (SHPO) (October 26, 1999). As the resource was determined eligible for listing on the NRHP, it is now also recommended as eligible for listing on the CRHR. The DCEIR concluded no significant impacts to historic or archaeological resources would occur with the incorporation of Mitigation Measures 3.4-2, 3.4-3 which are presented below.



### Project Area South of Dublin Boulevard

Technical review and analysis of cultural resources included in Appendix C and summarized above in the project area Records Search section concluded that there are no cultural resources in the project area south of Dublin Boulevard. Therefore, site preparation, excavation and construction of footing, foundations, and access ramps for the Overcrossing Project would not result in disturbance of cultural resources and no new or substantially more severe significant impacts are anticipated other than what has already been identified and mitigated in the DCEIR.

However, as stated in the DCEIR, it is possible unanticipated resources could be uncovered or found during construction. The following Dublin Crossing Specific Plan EIR Mitigation Measure which address potential significant impacts to unknown archaeological or historic resources that could be found or uncovered during construction activities are incorporated into the proposed Overcrossing Project:

- **DCEIR Mitigation Measure 3.4–2: Halt Work/Archaeological Evaluation/Site-Specific Mitigation.** If any potential archaeological, pre-historic or cultural artifacts are encountered during site grading or other construction activities, all ground disturbances within 50 feet of the discovery shall be halted until a qualified archaeologist can identify and evaluate the resource(s) in accordance with State CEQA Guidelines 15064.5(f). The archeological consultant shall immediately notify the project sponsor and the City staff of the encountered archeological deposit. If the deposit does not qualify as an archaeological resource, then no further protection or study is necessary. If the deposit does qualify as an archaeological resource, then the impacts shall be avoided by project activities. If the deposit cannot be avoided, adverse impacts to the deposit shall be addressed in accordance with State CEQA Guidelines 15126.4(b). Measures may include, but are not limited to archaeological data recovery, etc. Upon completion of the assessment by the archaeologist, a professional-quality report shall be submitted to the City, the project applicant, and the Northwest Information Center at Sonoma State University in Rohnert Park. The project applicant shall fund and implement the mitigation in accordance with Section 15064.5(c) through (f) of the CEQA Guidelines and Public Resources Code 21083.2.

**Conclusion.** With incorporation of the DCEIR mitigation measures above, the Overcrossing Project would not create new or substantially more severe significant impacts to resources as defined by CEQA in Sections 15064 or 15064.5.

#### c) Would the project disturb any human remains, including those interred outside of formal cemeteries?

As summarized above, there is no evidence to suggest that human remains would be found as a result of subsurface construction activities in the project area. However, the project incorporates the DCEIR mitigation measure (below) which would be implemented in the case that human remains are encountered during subsurface construction activities:



- **DCEIR Mitigation Measure 3.4-4: Halt Work/Coroner's Evaluation/Native American Heritage Consultant/Compliance with Most Likely Descendent Recommendations.** In the event that human remains are encountered during grading and site preparation activities, all ground-disturbing work within 50 feet of the remains shall cease immediately and a qualified archaeologist shall notify the Office of the Alameda County Coroner and advise that office as to whether the remains are likely to be Native American. If determined to be Native American, the Alameda County Coroner's Office shall notify the Native American Heritage Commission of the find, which in turn will then appoint a "Most Likely Descendent. (MLD)." The MLD in consultation with the archaeological consultant and the project sponsor will advise and help formulate an appropriate plan for treatment of the remains, which might include recordation, removal, and scientific study of the remains and any associated artifacts. After completion of the analysis and preparation of the report of findings, the remains and associated grave goods shall be returned to the MLD for burial.

**Conclusion.** With incorporation of the DCEIR mitigation measures presented above, the Overcrossing Project would not create new or substantially more severe significant impacts to human remains.

d) **Would the project cause a substantial adverse change in significance of a tribal cultural resource?**

Tribal cultural resources are 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. The resources must be 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), or it is significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1.

As discussed above and summarized in Appendix C, the City of Dublin reached out to local tribes regarding Tribal Resources in the project area pursuant to the requirements of AB 52. Following required consultation with Native American representatives, no Tribal Cultural Resources were identified.

**Conclusion.** No new or substantially more severe significant impacts to Tribal Cultural Resources would result from the Overcrossing Project.



## Energy Resources

ENVIRONMENTAL IMPACTS Issues	(1) New or Substantially More Severe Significant Impact	(2) New Information indicates that a Mitigation Measure of alternatives that was Previously found to be Infeasible or Declined by Project Proponent is now Proposed	(3) New or Substantially More Severe Significant Impact Avoided with Mitigation Incorporated	(4) No New or Substantially More Severe Significant Impact
<b>6. ENERGY RESOURCES — Would the project:</b>				
a) Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?				☒
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?				☒

## Existing Setting

The Iron Horse Regional Trail is not lighted in the vicinity of Dublin Boulevard and is restricted to non-motorized travel. The trail does not, therefore directly or indirectly consume any energy resources.

## Regulatory Framework

### Senate Bill 1389, State of California Integrated Energy Policy

In 2002, the Legislature passed Senate Bill 1389, which required the California Energy Commission to develop an integrated energy plan biannually for electricity, natural gas, and transportation fuels, for the California Energy Report. The plan calls for the state to assist in the transformation of the transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the least environmental and energy costs. To further this policy, the plan identifies a number of strategies, including assistance to public agencies and fleet operators in implementing incentive programs for Zero Emission Vehicles and their infrastructure needs, and encouragement of urban designs that reduce vehicle miles traveled and accommodate pedestrian and bicycle access.



An overarching goal of the integrated energy plan is to achieve the statewide greenhouse gas reduction targets, while improving overall energy efficiency is the main focus. The integrated energy plan is the State's chief program intended to provide a comprehensive statewide energy strategy to guide energy investments, energy-related regulatory efforts and greenhouse gas reduction measures.

### Impacts Evaluation

- a) Would the project result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

According to CEQA Guidelines Appendix F, conserving energy consists of decreasing overall per capita energy consumption, decreasing reliance on natural gas and oil, and increasing reliance on renewable energy sources. As discussed in relation to Transportation issues, the proposed Overcrossing Project would decrease congestion and reduce idling time at the Dublin Boulevard intersection with Scarlett Drive and also encourage increase use of pedestrian and bicycle travel along the trail. As a result, the proposed project would conserve energy and reduce "the wasteful, inefficient, and unnecessary consumption of energy" associated with automobile travel.

While construction of the Dublin Boulevard overcrossing would consume energy resources, construction activities would avoid use of diesel generators and draw power from the adjacent electrical grid, thereby decreasing reliance on fossil fuels during construction. All construction activities will be subject to DCEIR Mitigation Measure 3.2-1a, Implement Short-term Construction Best Management Practices. As a result, all construction equipment will be required to be well maintained and will not left to idle when not in use. Construction-related travel routes will also be planned to minimize vehicle miles traveled. With the exception of one night of activity to install the bridge structure, all construction activities will occur during daytime hours and nighttime lighting will not be required. Thus, project construction will not result in wasteful, inefficient, or unnecessary consumption of energy.

- b) Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

By (1) decreasing congestion and reducing idling time at the Dublin Boulevard intersection with Scarlett Drive and (2) also encouraging increased use of pedestrian and bicycle travel along Iron Horse Regional Trail, including non-motorized travel to the Dublin/Pleasanton BART station, the proposed Overcrossing Project would assist in reducing use of non-renewable energy and increasing the efficiency of travel within areas near the trail. The project would, therefore, not obstruct any plan for renewable energy or energy efficiency.



**Geology, Soils, and Seismicity**

ENVIRONMENTAL IMPACTS Issues	(1) New or Substantially More Severe Significant Impact	(2) New Information indicates that a Mitigation Measure of alternatives that was Previously found to be Infeasible or Declined by Project Proponent is now Proposed	(3) New or Substantially More Severe Significant Impact Avoided with Mitigation Incorporated	(4) No New or Substantially More Severe Significant Impact
<b>7. GEOLOGY, SOILS, AND SEISMICITY — Would the project:</b>				
a) Directly or indirectly cause substantial adverse effects, including the risk of loss, injury, or death involving:				
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?				☒
ii) Strong seismic ground shaking?				☒
iii) Seismic-related ground failure, including liquefaction?				☒
iv) Landslides?				☒
b) Result in substantial soil erosion or the loss of topsoil?				☒
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?				☒
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?				☒



ENVIRONMENTAL IMPACTS Issues	(1) New or Substantially More Severe Significant Impact	(2) New Information indicates that a Mitigation Measure of alternatives that was Previously found to be Infeasible or Declined by Project Proponent is now Proposed	(3) New or Substantially More Severe Significant Impact Avoided with Mitigation Incorporated	(4) No New or Substantially More Severe Significant Impact
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?				<input checked="" type="checkbox"/>
f) Directly or indirectly destroy a unique paleontological resource or unique geologic feature?				<input checked="" type="checkbox"/>

### Existing Setting

The project area is generally flat with a slope to the southwest. On-site elevation is approximately 336 feet at the intersection of Dublin Boulevard and the Iron Horse Regional Trail. According to the Alameda County Soil Survey (NRCS 1996), the project area is comprised of Clear Lake Clay (0 to 3 percent slopes). Clear Lake clay is a very deep, poorly drained soil. Permeability is slow to very slow, runoff is negligible to high.

### Expansive Soils

Results of the Atterberg limits tests conducted for the DCEIR indicate that the clayey soils near the existing ground surface are highly expansive. Expansive soils shrink or swell significantly with changes in moisture content. Clay content and porosity of the soil also influence the change in volume. The most common cause of changing soil moisture content is seasonal fluctuation due to rainfall. The shrinking and swelling caused by expansive clay rich soil often results in damage to overlying structures, including foundations, floor slabs, pavements, sidewalks, and other improvements that are sensitive to soil movements. Usually, damage from expansive soils can be minimized or eliminated by using site-specific engineering techniques.



### Erosion Potential

Soil erosion is the process by which soil particles are removed from a land surface by wind, water, or gravity. Topsoil is the uppermost layer of soil, usually the top six to eight inches, and has the highest concentration of organic matter and microorganisms. Topsoil erosion is of concern when the topsoil layer is blown or washed away. Most natural erosion occurs at relatively slow rates; however, the rate of erosion increases where the ground surface is steep and when land is cleared and/or left in a disturbed condition, such as may occur during the preparation and excavation phases of construction activities. According to the Natural Resources Conservation Service (NRCS), the Clear Lake soil at the project area is characterized as having slow to very slow erosion potential.

### Liquefaction, Landslide Risk, and Other Soil Hazards

The project area is located within a California Geological Survey (CGS) Seismic Hazard Zone where liquefaction may occur during a strong earthquake. Based on the geotechnical investigation undertaken for the DCEIR, there is the potential for liquefaction to occur within the occasional interbedded layers of loose to medium dense sandy soils that exist below the groundwater table. These potentially liquefiable layers generally range from approximately half of a foot to two feet thick and are overlain by at least ten feet of non-liquefiable cover.

### Lateral Spreading

Lateral spreading is the lateral movement of soil towards a free face (such as incised river channel or open body of water) during earthquakes. There are no such features in the project vicinity. Alamo Creek and Tassajara Creek are located more than 1,500 feet to the northwest and 4,000 feet to the east, respectively. Chabot Canal is less than five feet deep and is not anticipated to pose a risk for lateral spreading. Therefore, the risk of lateral spreading to occur within the project area is considered low.

### Seismic Compression

Settlement of ground surface can also occur as a result of seismic compression. The unsaturated soils encountered in the borings performed within the project area were predominantly stiff to very stiff clayey soils. Therefore, the potential for significant ground settlement due to seismic compression within the project area is considered low.

### Landsliding

The project area is generally flat and there are no major slopes within or adjacent to the project area. Therefore, there is no potential for landslides affecting the project area.



## Faults/Seismic Hazards

A fault is a fracture in the crust of the earth along which land on one side has moved relative to land on the other side. Most faults are the result of repeated displacements over a long period of time. A fault trace is the line on the earth's surface defining the fault. An active fault is defined by the State Mining and Geology Board as a fault that has "had surface displacement within Holocene times (about the last 11,000 years)." This definition does not mean that faults lacking evidence of surface displacement within Holocene times are necessarily inactive. A fault may be presumed to be inactive based on satisfactory geologic evidence; however, the evidence necessary to prove inactivity is sometimes difficult to obtain and locally may not exist. A potentially active fault is a fault that shows evidence of surface displacement during Quaternary time (about the last 1.6 million years).

The project area is not located within a currently designated Alquist-Priolo Earthquake Fault Zone.<sup>1</sup> Several active faults in the vicinity of the project area include the Pleasanton, Calaveras, Hayward, and San Andreas faults located approximately two, 10 and 29 miles to the southwest, respectively. The Mount Diablo Thrust and Greenville faults are located approximately two and 8½ miles to the northeast, respectively and the Las Positas Fault is located approximately 10½ miles to the southeast and the Concord-Green Valley fault approximately 12 miles to the northwest of the project area.

### Pleasanton Fault

The California Department of Mines and Geology (CDMG) determined that the epicenters for several micro-earthquakes were plotted near the mapped surface location of the Pleasanton Fault, north of Camp Parks. However, according to CDMG it is believed that these earthquakes are associated with the active Calaveras fault, located approximately 1.3 miles west of the Pleasanton fault and there is no confirmed evidence to support historical seismicity on the Pleasanton Fault. No features were found within the project area associated with active faulting.

### Ground Shaking

The project area is located within the San Francisco Bay area, which is a region of high seismicity. Similar to all sites located in the San Francisco Bay area, the project area is expected

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<sup>1</sup> The Alquist-Priolo Act requires the State Geologist to establish regulatory zones (now referred to as "Earthquake Fault Zones") around the mapped surface traces of active faults. The Act requires local agencies to regulate development within Earthquake Fault Zones. Before a development project can be permitted within an Earthquake Fault Zone, a geologic investigation is required to demonstrate that proposed buildings would not be constructed across active faults. If an active fault is found, a structure for human occupancy cannot be placed over the trace of the fault and must be set back a minimum of 50 feet from the fault.



to experience at least one moderate to large earthquake during the lifespan of the proposed project.

## Regulatory Setting

### Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act was passed in 1972 (originally enacted as the Alquist-Priolo Special Studies Zones Act and renamed in 1994) and is intended to reduce the risk to life and property from surface fault rupture during earthquakes. The main purpose of the law is to prevent the construction of buildings used for human occupancy on the surface trace of active faults. The law only addresses the hazard of surface fault rupture and is not directed toward other earthquake hazards. The Alquist-Priolo Act requires the State Geologist to establish regulatory zones known as “Earthquake Fault Zones” around the surface traces of active faults and to issue appropriate maps. The maps are distributed to all affected cities, counties, and state agencies for their use in planning efforts. Local agencies must regulate most development projects within the zones. Projects include all land divisions and most structures for human occupancy. Before a development project can be permitted within an Earthquake Fault Zone, a geologic investigation is required to demonstrate that proposed buildings would not be constructed across active faults. A site-specific evaluation and written report must be prepared by a licensed geologist. If an active fault is found, a structure for human occupancy cannot be placed over the trace of the fault and must be set back a minimum of 50 feet from the fault.

### California Building Standards Code (CBC)

The State of California provides minimum standards for building design through the CBC. The CBC is based on the Uniform Building Code (UBC), which is used widely throughout the United States (generally adopted on a state-by-state or district-by-district basis), and has been modified for conditions within California. The CBC requires extensive geotechnical analysis and engineering for grading, foundations, retaining walls, and other structures, including criteria for seismic design. The proposed project is located within Seismic Zone 4, which is expected to experience the greatest effects from earthquakes and requires the most stringent requirements for seismic design.

### Seismic Hazards Mapping Act

The CGS provides guidance with regard to seismic hazards under the Seismic Hazards Mapping Act. Seismic hazard zones are identified and mapped by the CGS to assist local governments in land use planning. The intent of the Act is to protect the public from the effects of strong ground shaking, liquefaction, landslides, ground failure, or other hazards caused by earthquakes. In addition, CGS Special Publication 117, Guidelines for Evaluating and Mitigating Seismic Hazards in California, provides guidance for the evaluation and mitigation of



earthquake-related hazards for projects within designated zones of required investigations. The proposed project is located within a CGS Seismic Hazard Zone where liquefaction may occur during a strong earthquake; however, the proposed project is not located within a CGS Seismic Hazard Zone where landslides may occur during a strong earthquake.

## Impacts Evaluation

The DCEIR found that ground shaking is likely to occur in the event of a major earthquake on one of the nearby faults resulting in the exposure of people and/or structures to potentially significant adverse effects, including the risk of loss, injury or death. The DCEIR concluded this was potentially significant impact. The EIR also concluded development associated with the DCSP could expose people or structures to potential substantial adverse effects of liquefaction. Implementation of the Overcrossing Project constitutes future development within an area of expansive soils. Adherence to the City's Building Code and CBC requirements along with implementation of the following mitigation measures included in the DCEIR would apply to the Overcrossing Project:

- **DCEIR Mitigation Measure 3.5-3: Preparation of Design-Level Geotechnical Report.**

Future development within the project area shall consult with a registered geotechnical engineer to prepare a design level geotechnical report that incorporates the recommendations included in the DCEIR's preliminary geotechnical investigation by Berlogar, Stevens and Associates (March 2012). The design level geotechnical report shall address site preparation and grading (including measures to address potential liquefaction and expansive soils), building foundations, CBC seismic design parameters, and preliminary pavement sections. This report shall be submitted in conjunction with Building Permit application(s) and reviewed and approved by the City. The Report's recommendations shall be incorporated into the project design and construction documents.

(a-c) Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: i) rupture of a known earthquake fault, ii) strong seismic ground shaking, iii) seismic-related ground failure, or iv) landslides? Would the project be located on a geologic unit or soil that is unstable, or that will become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

## Surface Fault Rapture and Seismic Shaking

The project site is located within the seismically-active San Francisco Bay region but is not located within an Alquist-Priolo Earthquake Fault Zone. There are no known earthquake faults crossing the site.

The Association of Bay Area Governments (ABAG) has reported that the Working Group on California Earthquake Probabilities (2007) has estimated that there is a 63 percent probability that one or more major earthquakes would occur in the San Francisco Bay Area between 2007



and 2036. An earthquake occurring on any of the fault lines in the region may induce seismic ground shaking at the project site. The proposed Overcrossing Project will be designed to withstand a major earthquake without collapse based on site-specific geologic conditions and regional earthquake probabilities. The project would not, therefore, result in a new or substantially more severe impact than was disclosed in the DCEIR.

#### Seismic-Related Ground Failure

Construction of the proposed bridge overcrossing would be required to comply with applicable provisions of the California Building Code, City engineering design requirements, and standard engineering design requirements, as well as any requirements set forth in a site-specific geologic and soils investigation to be undertaken for the project. As a result, the project would not expose people or structures to seismic-related ground failure hazards.

#### Landslides

The project area is generally flat with no potential for landslides. The north and south bridge approaches require construction of manufactured slopes. Such slopes will be designed to avoid erosion and surficial failure. As a result, no impacts in relation to landslides would result.

#### Liquefaction

Based on the geotechnical investigation undertaken for the Dublin Crossing Specific Plan, there is the potential for liquefaction to occur in the area within the occasional interbedded layers of loose to medium dense sandy soils that exist below the groundwater table. These potentially liquefiable layers generally range from approximately half a foot to two feet thick and are overlain by at least ten feet of non-liquefiable cover.

The DCEIR requires that future development comply with the City's Building Code, liquefaction regulations of the California Building Code, and the City's standard engineering practices and design criteria. In addition, [Mitigation Measure MM 3.5-3](#) requires preparation of a design-level geotechnical report, which would address liquefaction and reduce this potentially significant impact to a less than significant level. As a result, the project would not expose people or structures to liquefaction hazards.

- d) Would the project result in substantial soil erosion or the loss of topsoil? Would the project be located on expansive soil, as defined in Section 1802.3.2 of the California Building Code (2007), creating substantial risks to life or property?

#### Loss of Topsoil

The project site is generally flat and not adjacent to any steep slopes. The project would require minimal soil disturbance within the project area to prepare foundations and footings for a free-span bridge structure and associated ramps designed to create access to and from the



overcrossing. This minor amount of soil disturbance is not likely to result in any substantial soil erosion.

#### Expansive Soil

According to the preliminary geotechnical investigation prepared for the Dublin Crossing Specific Plan, soils in the area have a very high expansion potential. A design level geotechnical analysis would be required for the Overcrossing Project as required by DCEIR [Mitigation Measure MM 3.5-3](#). In addition, the proposed project would be required to adhere to the City's Building Code and CBC requirements. Therefore, with compliance with regulatory requirements and measures in the design level geotechnical report which would address expansive soils, the proposed project would not result in a significant or substantially more severe impact than was disclosed in the DCEIR.

- e) Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

The project does not propose the use of septic tanks or alternative wastewater disposal systems. No impacts would result.

- f) Would the project directly or indirectly destroy a unique paleontological resource or a unique geologic feature?

As summarized above, there are no known paleontological resources within the project area. In addition, the project incorporates the DCEIR mitigation measure (below) which would be implemented in the case that previously unknown paleontological resources are encountered during subsurface construction activities:

- **DCEIR Mitigation Measure 3.4-3: Halt Work/Paleontological Evaluation/Site-Specific Mitigation.** If paleontological resources are encountered during subsurface construction activities, all work within 50 feet of the discovery shall be redirected until a qualified paleontologist can evaluate the finds. If the paleontological resources are found to be significant, they shall be avoided by project construction activities and recovered by a qualified paleontologist. Upon completion of the recovery, a paleontological assessment shall be conducted by a qualified paleontologist to determine if further monitoring for paleontological resources is required. The assessment shall include: 1) the results of any geotechnical investigation prepared for the project area; 2) specific details of the construction plans for the project area; 3) background research; and 4) limited subsurface investigation within the project area. If a high potential to encounter paleontological resources is confirmed, a monitoring plan of further project subsurface construction shall be prepared in conjunction with this assessment. After project subsurface construction has ended, a report documenting monitoring, methods, findings, and further recommendations regarding paleontological resources shall be prepared and submitted to the Community Planning Director.



**Conclusion.** The Overcrossing Project would not create new or substantially more severe significant impacts to paleontological resources.



**Greenhouse Gas Emissions**

ENVIRONMENTAL IMPACTS Issues	New or Substantially More Severe Significant Impact	Mitigation Measure Previously found to be Infeasible or Declined by Project Proponent now Proposed	New or Substantially More Severe Significant Impact Avoided with Mitigation Incorporated	No New or Substantially More Severe Significant Impact
<b>8. GREENHOUSE GAS EMISSIONS— Would the project:</b>				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?				<input checked="" type="checkbox"/>
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?				<input checked="" type="checkbox"/>

**Existing Setting**

Global warming associated with the “greenhouse effect” is a process whereby greenhouse gas (GHG) accumulating in the atmosphere contribute to an increase in the temperature of the earth’s atmosphere over time. Therefore, unlike emissions of criteria and toxic air pollutants discussed in above in relation to air quality, emissions of Greenhouse Gases (GHGs) have a broader, global impact. The principal GHGs contributing to global warming and associated climate change are carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), and fluorinated compounds. Emissions of GHGs contributing to global climate change are attributable in large part to human activities associated with the transportation, industrial/manufacturing, utility, residential, commercial, and agricultural sectors.

**Regulatory Setting****California Assembly Bill 32 and Executive Order S-3-05**

Assembly Bill 32 (AB 32), also known as the Global Warming Solutions Act, was passed in 2006 and established a goal to reduce GHG emissions to 1990 levels by 2020. Prior to the adoption of AB 32, the Governor of California also signed Executive Order S-3-05 into law, which set a long-term objective to reduce GHG emissions to 90 percent below 1990 levels by 2050. The California Environmental Protection Agency (Cal/EPA) is the state agency in charge of coordinating the GHG emissions reduction effort and establishing targets along the way.



In December 2008, CARB approved the Climate Change Scoping Plan, which proposes a comprehensive set of actions designed to reduce California's dependence on oil, diversify energy sources, save energy, and enhance public health, among other goals. Per AB 32, the Scoping Plan must be updated every five years to evaluate the mix of AB 32 policies to ensure that California is on track to achieve the 2020 greenhouse gas reduction goal.

In May 2014, CARB adopted an updated Scoping Plan document. The 2014 Update highlights California's progress toward meeting the "near-term" 2020 greenhouse gas emission reduction goals defined in the 2008 Scoping Plan and evaluates how to align the State's longer-term greenhouse gas reduction strategies with other State policy priorities, such as for water, natural resources, agriculture, clean energy, and transportation and land use.

#### California Senate Bill 375

Senate Bill 375 (SB 375), known as the Sustainable Communities Strategy and Climate Protection Act, was signed into law in September 2008. It builds on AB 32 by requiring CARB to develop regional GHG reduction targets to be achieved from the automobile and light truck sectors for 2020 and 2035 in comparison to 2005 emissions. The per capita reduction targets for passenger vehicles in the San Francisco Bay Area include a seven percent reduction by 2020 and a 15 percent reduction by 2035, consistent with the requirements of SB 375, MTC, and the ABAG adopted Plan Bay Area in July 2013. The strategies in the plan are intended to promote compact, mixed-use development close to public transit, jobs, schools, shopping, parks, recreation, and other amenities, particularly within Priority Development Areas (PDAs) identified by local jurisdictions. The project site is located in a PDA.

#### Executive Order B-30-15

On April 29, 2015, Governor Edmund G. Brown Jr. issued Executive Order B-30-15, setting a new interim statewide greenhouse gas emission reduction target. The purpose of establishing the interim target is to ensure California meets its previously established target of reducing GHG emissions to 80 percent below 1990 levels by 2050, as set forth in Executive Order S-3-05 in 2005.

Under Executive Order B-30-15, the interim target is to reduce greenhouse gas emissions to 40 percent below 1990 levels by 2030.

As a part of this effort, CARB is required to update the Climate Change Scoping Plan to express the 2030 target in terms of million metric tons of carbon dioxide equivalent. CARB will initiate a public process in the summer of 2015 to update the State's Climate Change Scoping Plan. The updated Scoping Plan will provide a framework for achieving the 2030 target and will be completed and adopted by CARB in 2016.



This Executive Order also calls for the California Natural Resources Agency (CNRA) to update the State of California's climate adaption strategy, Safeguarding California, every three years. The Safeguarding California plan will identify vulnerabilities to climate change by region and sector, including water, energy, transportation, public health, agriculture, emergency services, forestry, biodiversity and habitat, and ocean and coastal resources. It also will identify actions needed to reduce risks to residents, property, communities, and natural systems from the vulnerabilities. A lead agency or group of agencies will be identified to lead adaptation efforts in each sector. Overall, the CNRA will be responsible for ensuring that the provisions in the State's climate adaption strategy are fully implemented and state agencies must take climate change impacts into account in their planning decisions, including for all infrastructure projects.

#### Bay Area Air Quality Management District

The BAAQMD is the regional government agency that regulates sources of air pollution within the nine San Francisco Bay Area counties. The BAAQMD regulates GHG emissions through the following plans, programs, and guidelines.

#### Regional Clean Air Plans

BAAQMD and other air districts prepare clean air plans in accordance with the state and federal Clean Air Acts. The Bay Area 2010 Clean Air Plan (CAP) provides an Atherton Channel Pedestrian and Bicycle Bridge Project 43 Initial Study/Draft Mitigated Negative Declaration comprehensive plan to improve Bay Area air quality and protect public health through implementation of a control strategy designed to reduce emissions and decrease ambient concentrations of harmful pollutants. The most recent CAP also includes measures design to reduce GHG emissions.

#### BAAQMD CEQA Air Quality Guidelines

BAAQMD's CEQA Air Quality Guidelines include thresholds of significance for GHG emissions and provide additional guidance for tiering under CEQA. Under the CEQA Air Quality Guidelines, a local government may prepare a qualified GHG Reduction Strategy that is consistent with AB 32 goals. If a project is consistent with an adopted qualified GHG Reduction Strategy and General Plan that address the project's GHG emissions, it can be presumed that the project would not have significant GHG emissions under CEQA.

#### City of Dublin Climate Action Plan

The City of Dublin prepared a Climate Action Plan (CAP) and IS/MND in October 2010. The City's CAP provides background on actions taken to curb GHG emissions; presents Dublin's baseline GHG emissions inventory in 2005 and forecast for GHG emissions in 2020 based on business-as-usual scenario; establishes a GHG emissions reduction target; and presents steps for implementation of the CAP and monitoring and verification of the CAP to achieve the designated emissions reduction target.



The City's CAP serves as the City of Dublin's qualified GHG Reduction Plan and programmatic tiering document for the purposes of CEQA for the analysis of impacts to GHG emissions and climate change. The City has determined that the reduction target under the CAP will reduce the impact from activities under the CAP to a less than significant level under CEQA. If a proposed project is consistent with the applicable emission reduction measures identified in the CAP, the project would be considered to have a less than significant impact (i.e., less than cumulatively considerable contribution to significant cumulative impact) due to GHG emissions and climate change consistent with Public Resources Code Section 21083.3 and CEQA Guidelines Sections 15183.5, 15064, and 15130.

#### Summary of Dublin Crossing Specific Plan EIR

The DCEIR addressed greenhouse gas emissions associated with buildout of the 189-acre Plan area and its housing, commercial and open space and park uses. Several measures that would be consistent with the CAP measures are included in the DCEIR, leading to the conclusion that the project is consistent with the CAP. Since the CAP is consistent with AB 32, the proposed project would not hinder the State's GHG reduction strategies for meeting the goals established by AB 32.

#### Impacts Evaluation

a,b) Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

The Bay Area AQMD does not have an adopted threshold of significance for construction-related GHG emissions. In its analysis of Greenhouse Gas emissions, the DCEIR determined that GHG emissions would be generated by construction activities, as well as from increased vehicle miles traveled (VMT), area sources, energy consumption, water supply, and solid waste generation. The DCEIR provided quantified emissions for area sources, energy consumption, mobile sources, water supply, and solid waste generation, since these were the only GHG emissions sources large enough to provide for meaningful analysis. Greenhouse gas emissions would occur during construction of the footings, foundation and user-access ramps, and during delivery and installation of the Overcrossing Project. Minimal vehicle trips would be necessary to complete the project. Based on the limited amount of construction-related activities necessary to complete the Overcrossing Project in relation to construction activities needed for buildout of the Dublin Crossing Specific Plan and implementation of Basic Construction Measures discussed in *Section 4.3, Air Quality*, of the DCEIR, the Overcrossing Project would not result in new or substantially more severe significant GHG impacts than were disclosed in the DCEIR.



## Hazards and Hazardous Materials

ENVIRONMENTAL IMPACTS Issues	(1) New or Substantially More Severe Significant Impact	(2) New Information Indicates that a Mitigation Measure or Alternative that was Previously found to be Infeasible or Declined by Project Proponent is now Proposed	(3) New or Substantially More Severe Significant Impact Avoided with Mitigation Incorporated	(4) No New or Substantially More Severe Significant Impact
<b>9. HAZARDS AND HAZARDOUS MATERIALS — Would the project:</b>				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?				<input checked="" type="checkbox"/>
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?				<input checked="" type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				<input checked="" type="checkbox"/>
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?				<input checked="" type="checkbox"/>
e) For a project located within an airport land use plan or within the vicinity of a private airstrip, would the project result in a safety hazard or excessive noise for people residing or working in the project area?				<input checked="" type="checkbox"/>
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				<input checked="" type="checkbox"/>



ENVIRONMENTAL IMPACTS Issues	(1) New or Substantially More Severe Significant Impact	(2) New Information Indicates that a Mitigation Measure or Alternative that was Previously found to be Infeasible or Declined by Project Proponent is now Proposed	(3) New or Substantially More Severe Significant Impact Avoided with Mitigation Incorporated	(4) No New or Substantially More Severe Significant Impact
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?				<input checked="" type="checkbox"/>

### Existing Setting

Hazardous waste in California is regulated primarily under the authority of the federal Resource Conservation and Recovery Act of 1976, and the California Health and Safety Code. Other California laws that affect hazardous waste are specific to handling, storage, transportation, disposal, treatment, reduction, cleanup and emergency planning. In California, the Environmental Protection Agency (EPA) has granted most enforcement authority of federal hazardous materials regulations to the California Environmental Protection Agency (Cal/EPA). Under the authority of Cal/EPA, the Department of Toxic Substances Control (DTSC) or the San Francisco Bay Regional Water Quality Control Board (Regional Water Board) is responsible for overseeing the remediation of contaminated sites in the San Francisco Bay area.

Worker health and safety and public safety are key issues when dealing with hazardous materials that may affect human health and the environment. Proper disposal of hazardous material is vital if it is disturbed during project construction. The California Department of Industrial Relations, Division of Occupational Safety and Health (DOSH) enforces state worker health and safety regulations related to construction activities. Regulations include exposure limits, protective clothing, and training requirements to prevent exposure to hazardous materials. DOSH also enforces occupational health and safety regulations specific to lead and asbestos investigations and abatement, which equal or exceed their federal counterparts.

Hazardous waste generators and hazardous materials users in the City are required to comply with regulations enforced by several federal, state, and county agencies. The regulations are designed to reduce the risk associated with the human exposure to hazardous materials and minimize adverse environmental effects. State and federal construction worker health and safety regulations require protective measures during construction activities where workers may be exposed to asbestos, lead, and/or other hazardous materials.



## Regulatory Setting

Federal, State, and local regulatory hazardous materials databases record the type of hazardous source, the status for cleanup, monitoring, and/or remediation, and the location of the source. These databases include:

- National Priority List (NPL): Also known as Superfund, the NPL database identifies properties for priority cleanup under the Superfund program. The purpose of this database is to assist the U.S. EPA in prioritizing and determining sites that warrant further investigation through utilizing the Hazard Ranking System (HRS). The EPA requires that the criteria provided by the HRS be used to make a list of national priorities of the known releases or threatened releases of hazardous substances, pollutants, or contaminants in the United States.
- Envirostor: The DTSC's Envirostor database identifies sites that have known contamination or sites for which there may be reasons to investigate further.
- The database includes the following site types: Federal Superfund sites; State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites.
- GeoTracker: This database contains registered underground storage tanks (USTs) as well as other hazardous material sites. The data originates from the State Water Resources Control Board's Hazardous Substance Storage Container Database.

A review of the Envirostor and GeoTracker databases did not identify any hazardous sources on-site or within 1,000 feet of the proposed project site

## Impacts Evaluation

- a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Hazardous materials and substances are highly regulated at the federal, state, and local levels. As stated in the DCEIR, compliance with all applicable local, state, and federal laws that regulate, control, or respond to hazardous waste, transport, disposal, or clean-up would ensure that construction and operations would have a less than significant impact in regard to hazards and hazardous materials. Because the Overcrossing Project would be subject to the same local, state, and federal laws that regulate, control, or respond to hazardous waste, transport, disposal, or clean-up, no new or substantially more severe impacts would result.

- 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?

Chemicals such as gasoline, diesel fuel, lubricating oil, hydraulic oil, lubricating grease, automatic transmission fluid, paints, solvents, glues, and other substances will be utilized during construction. An accidental release of any of these substances could degrade the water



quality of the surface water runoff and add additional sources of pollution into the drainage system. As stated in the DCEIR, "Handling procedures of the Alameda County Environmental Health Department and the Alameda County Fire Department would be required during all phases of future development within the project area. These measures include standards and regulations regarding the storage, handling, and use of these materials." As a result, the DCEIR concluded that impacts related to reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment would be less than significant. Because the Overcrossing Project would (1) be subject to the same standards and regulations regarding the storage, handling, and use of hazardous materials, (2) involve far lesser amounts of such materials due to the far small size of the project compared to the Dublin Crossing Specific Plan, (3) have a far shorter construction period (60 days) compared to the Dublin Crossing Specific Plan (intermittent construction activities over 8-12 years), no new or substantially more severe significant impacts would result.

- c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

The Overcrossing Project is not located within one-quarter mile of an existing or proposed school.

- 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?

The location of the Overcrossing Project is not on a list of hazardous materials sites pursuant to Government Code Section 65962.5.

- e) For a project located within an airport land use plan or within the vicinity of a private airstrip, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

The closest airport to the project area is the Livermore Municipal Airport which is located approximately five miles east of the project area. According to the Livermore Municipal Airport Master Plan, the project area is not located within the approach zones and is not located within an unacceptable noise contour. Therefore, the Overcrossing Project would not result in a safety hazard or excessive noise levels for any people residing or working in the area.

- f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

The Overcrossing Project includes a free-span bridge structure with a minimum 17-foot clearance over Dublin Boulevard, which is primarily a six lane east/west arterial and a route of regional significance. Dublin Boulevard is also an important emergency evacuation route within the City. The minimum 17-foot vertical clearance provided by the Overcrossing Project provides for safe passage by large truck-trailer combinations and emergency vehicles, including fire engines and ladder trucks. The Overcrossing Project would not obstruct or impair operation of



Dublin Boulevard and therefore would not physically interfere with an emergency response plan or emergency evacuation plan through the City.

- g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

As the project area is located in an urban area and is surrounded by existing development, the Overcrossing Project would not expose people or structures to wildfire hazards.

#### Conclusion

The Overcrossing Project would not result in significant hazardous materials or hazard impacts and there would be no new or substantially more severe significant Impacts.



## Hydrology and Water Quality

ENVIRONMENTAL IMPACTS Issues	(1) New or Substantially More Severe Significant Impact	(2) New Information Indicates that a Mitigation Measure or Alternatives that was Previously found to be Infeasible or Declined by Project Proponent is now Proposed	(3) New or Substantially More Severe Significant Impact Avoided with Mitigation Incorporated	(4) No New or Substantially More Severe Significant Impact
<b>10. HYDROLOGY AND WATER QUALITY — Would the project:</b>				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?				<input checked="" type="checkbox"/>
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable management of the basin?				<input checked="" type="checkbox"/>
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 addition of impervious surfaces, in a manner that would:				
1) result in substantial on- or off-site erosion or siltation?				<input checked="" type="checkbox"/>
2) substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?				<input checked="" type="checkbox"/>
3) create or contribute to runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?				<input checked="" type="checkbox"/>
4) impede or redirect flood flows?				



ENVIRONMENTAL IMPACTS Issues	(1) New or Substantially More Severe Significant Impact	(2) New Information Indicates that a Mitigation Measure or Alternatives that was Previously found to be Infeasible or Declined by Project Proponent is now Proposed	(3) New or Substantially More Severe Significant Impact Avoided with Mitigation Incorporated	(4) No New or Substantially More Severe Significant Impact
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?				<input checked="" type="checkbox"/>
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?				<input checked="" type="checkbox"/>

## Existing Setting

### Flooding

National Flood Insurance Rate Maps indicate that a portion of the project area north of Dublin Boulevard is located within Zone X defined as “areas of 0.2 percent annual chance flood; areas of 1 percent annual chance flood with average depths of less than one foot or within drainage areas less than one square mile; and areas protected by levees from one percent annual flood.” The portion of the project area south of Dublin Boulevard is designated as Zone AE which is a special flood hazard area subject to inundation by the 1 percent annual flood.

### Groundwater

The Overcrossing Project is located within the Livermore Valley Groundwater Basin, which contains a surface area of approximately 109 square miles. The Livermore Valley Groundwater Basin lies approximately 40 miles east of San Francisco and 30 miles southwest of Stockton, within a structural trough of the Diablo Range. The entire floor of the Livermore Valley and portions of the upland areas on all sides of the valley overlie groundwater bearing materials. The materials are mostly continental deposits from alluvial fans, outwash plains, and lakes. They include valley-fill materials, the Livermore Formation and the Tassajara Formation.



## Water Quality

The quality of surface and groundwater at the proposed project area is affected by land uses within the entire watershed. Water quality in surface and groundwater bodies is regulated primarily by the State and RWQCBs (discussed below).

### Watershed Characteristics

The City of Dublin and the project site are located within the Livermore Drainage Unit, which is one of two major drainage basins in the Alameda Creek Watershed. The 660-square mile Alameda Creek Watershed is the largest watershed in the Bay Area, extending as far south as Mount Hamilton, north to Mount Diablo, east to the Altamont Hills in Livermore, and west to San Francisco Bay. The Overcrossing Project is within an 1,800+ acre watershed that conveys storm flows through natural and man-made features. The largest portion of this watershed is located north of the DCSP and drains south within the main channel of Chabot Channel, concentrating near the intersection of Scarlett Drive and Dublin Boulevard. Much of the area is currently a mapped Federal Environmental Management Agency (FEMA) 100-year floodplain.

## Regulatory Setting

### Federal Clean Water Act

The principal law governing pollution of the nation's surface waters is the Federal Water Pollution Control Act (Clean Water Act [CWA]). Originally enacted in 1948, it was amended in 1972 and has remained substantially the same since. The CWA consists of two major parts: provisions that authorize federal financial assistance for municipal sewage treatment plant construction and regulatory requirements that apply to industrial and municipal dischargers. The CWA authorizes the establishment of effluent standards on an industry basis. The CWA also requires states to adopt water quality standards that "consist of the designated uses of the navigable waters involved and the water quality criteria for such waters based upon such uses".

### National Pollutant Discharge Elimination System

To achieve its objectives, the CWA is based on the concept that all discharges into the nation's waters are unlawful, unless specifically authorized by a permit. The NPDES is the permitting program for discharge of pollutants into surface waters of the United States under Section 402 of the CWA. Thus, industrial and municipal dischargers (point source discharges) must obtain NPDES permits from the appropriate RWQCB (i.e., the Central Valley region). The existing NPDES (Phase I) stormwater program requires municipalities serving more than 1,000,000 persons to obtain a NPDES stormwater permit for any construction project larger than five acres. Proposed NPDES stormwater regulations (Phase II) expand this existing national program to smaller municipalities with populations of 10,000 persons or more and construction sites that disturb more than one acre. For other dischargers, such as those affecting groundwater or



from non-point sources, a Report of Waste Discharge must be filed with the RWQCB. For specified situations, some permits may be waived, and some discharge activities may be handled through being included in an existing General Permit.

Construction activity subject to a General Permit includes any clearing, grading, stockpiling, or excavation that results in soil disturbances of one acre of total land area or more. Construction activities disturbing less than 1 acre are still subject to this permit if the activity is part of a large common plan of development or if significant water quality impairment will result from the activity. The General Permit requires all dischargers whose construction activity disturbs one acre or more to:

- Develop and implement a Storm Water Pollution Prevention Plan (SWPPP) that specifies Best Management Practices (BMPs) to prevent all construction pollutants from contacting stormwater and with the intent of keeping all products of erosion from moving off-site into receiving waters; and,
- Eliminate or reduce non-stormwater discharge to storm sewer systems and other waters of the United States and inspect all BMPs.

#### Impaired Waterbodies

CWA Section 303(d) and California's Porter-Cologne Water Quality Control Act (described below) require the State to establish the beneficial uses of its State waters and to adopt water quality standards to protect those beneficial uses. Section 303(d) establishes a total maximum daily load (TMDL), which is the maximum quantity of a particular contaminant that a water body can maintain without experiencing adverse effects, to guide the application of State water quality standards. Section 303(d) also requires the State to identify "impaired" streams (water bodies affected by the presence of pollutants or contaminants) and to establish the TMDL for each stream.

#### Federal Flood Insurance Program

Congress passed the National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973. The intent of these acts is to reduce the need for large publicly funded flood control structures and disaster relief by restricting development on floodplains. FEMA administers the NFIP to provide subsidized flood insurance to communities that comply with FEMA regulations limiting development on floodplains. FEMA issues FIRMs for communities participating in the NFIP. FIRMs delineate flood hazard zones in the community.

A Special Flood Hazard Area (SFHA) is an area within a floodplain having a one percent or greater chance of flood occurrence within any given year (commonly referred to as the 100 year flood zone). SFHAs are delineated on flood hazard boundary maps issued by FEMA. The Flood Disaster Protection Act of 1973 and the National Flood Insurance Reform Act of 1994 make flood insurance mandatory for most properties in SFHAs.



### Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act acts in cooperation with the CWA to establish the SWRCB. The SWRCB is divided into nine regions, each overseen by a RWQCB. The SWRCB, and thus each RWQCB, is responsible for protecting California's surface waters and groundwater supplies. The Porter-Cologne Water Quality Control Act develops Basin Plans that designate the beneficial uses of California's rivers and groundwater basins. The Basin Plans also establish narrative and numerical water quality objectives for those waters. Basin Plans are updated every three years and provide the basis of determining waste discharge requirements, taking enforcement actions, and evaluating clean water grant proposals. The Porter-Cologne Water Quality Control Act is also responsible for implementing CWA Sections 401-402 and 303(d) to SWRCB and RWQCBs.

### Regional Water Quality Control Board, San Francisco Bay Region

The San Francisco Bay RWQCB regulates surface water and groundwater quality in San Francisco Bay, including the City of Dublin. The area under the RWQCB's jurisdiction comprises all of the San Francisco Bay segments extending to the mouth of the Sacramento-San Joaquin Delta (Winter Island near Pittsburg). In its efforts to protect surface waters and groundwaters of the San Francisco region, the RWQCB addresses region wide water quality concerns through the creation and triennial update of a Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan, 2011) and adopts, monitors compliance with, and enforces waste discharge requirements and NPDES permits.

The RWQCB's overall mission is to protect surface waters and groundwater in the Region. The Water Board carries out its mission by:

- Addressing Region-wide water quality concerns through the creation and triennial
- Update of a Water Quality Control Plan (Basin Plan);
- Preparing new or revised policies addressing Region-wide water quality concerns;
- Adopting, monitoring compliance with, and enforcing waste discharge requirements and National Pollutant Discharge Elimination System (NPDES) permits;
- Providing recommendations to the State Water Board on financial assistance programs, proposals for water diversion, budget development, and other statewide programs and policies;
- Coordinating with other public agencies that are concerned with water quality control; and
- Informing and involving the public on water quality issues.



### Stormwater Pollution Prevention Plan (SWPPP)

The SWPPP has two major objectives: 1) to help identify the sources of sediment and other pollutants that affect the quality of storm water discharges, and 2) to describe and ensure the implementation of BMPs to reduce or eliminate sediment and other pollutants in both stormwater and in non-stormwater discharges.

BMPs include activities, practices, maintenance procedures, and other management practices that reduce or eliminate pollutants in stormwater discharges and authorized non-stormwater discharges. BMPs include treatment requirements, operation procedures, and practices to control site runoff, spillage, leaks, waste disposal, and drainage from raw materials storage. BMP implementation must take into account changing weather conditions and construction activities, and various combinations of BMPs may be used over the life of the project to maintain compliance with the CWA. The General NPDES Permit gives the owner the discretion to determine the most economical, effective, and innovative BMPs to achieve the performance-based goals of the General NPDES Permit.

There are two categories of BMPs: structural and non-structural. Structural BMPs are the specific construction, modification, operation, maintenance, or monitoring of facilities that would minimize the introduction of pollutants into the drainage system or would remove pollutants from the drainage system. Non-structural BMPs are activities, programs, and other nonphysical measures that help reduce pollutants from non-point sources to the drainage system. In general, nonstructural BMPs are source control measures.

The issue of pollution in stormwater and urban runoff has been recognized by both federal and state agencies, and there has been a growing concern regarding activities that discharge water affecting California's surface water, coastal waters, and groundwater. Discharges of water are classified as either point source or non-point source discharges. A point source discharge usually refers to waste emanating from a single, identifiable point. Regulated point sources include municipal wastewater, oil field wastewater, winery discharges, solid waste sites, and other industrial discharges. Point source discharge must be actively managed to protect the state's waters. A non-point source discharge usually is a waste emanating from diffused locations. As a result, specific sources of non-point source pollution may be difficult to identify, treat, or regulate. The goal is to reduce the adverse impact of non-point source discharges on water resources through better management of these activities. Non-point sources include drainage and percolation from a variety of activities such as agriculture, forestry, recreation, and storm runoff with the latter being the most common in the Dublin area.



## Impacts Evaluation

- a) Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?

Construction of the Overcrossing Project will require limited grading and excavation to create footings and foundations on the north and south sides of Dublin Boulevard where the free span bridge structure would touch down and connect to ramps extending from the bridge back down to the Iron Horse Trail. Construction disturbance of soil surfaces in the project area will create the potential for surface water to carry sediment from onsite erosion into the storm water system and local waterways. Construction of the proposed project will also require the use of gasoline and diesel powered equipment, such as bulldozers, backhoes, water pumps, and air compressors. Chemicals such as gasoline, diesel fuel, lubricating oil, hydraulic oil, lubricating grease, automatic transmission fluid, paints, solvents, glues, and other substances will be utilized during construction. An accidental release of any of these substances could degrade the water quality of the surface water runoff and add additional sources of pollution into the drainage system.

As stated in the DCEIR for Dublin Crossing Specific Plan, all construction would be required to comply with NPDES permit requirements including preparation of a SWPPP, which would incorporate BMPs to control erosion, siltation, and contaminated runoff from construction sites. The proposed Overcrossing Project will be subject to the same requirements for implementation of BMPs during construction.

The BMPs for storm water quality treatment set forth in the DCEIR include structural and nonstructural measures. Structural measures may include bio-filters, wetlands, infiltration basins, or mechanical structures designed to remove pollutants from stormwater. Non-structural measures such as street sweeping, public education, or hazardous substance recycling centers are preventive measures intended to control the source of pollutants. Typical BMPs that are included within NPDES permit requirements include:

- Use of sand bags and temporary desiltation basins during project grading and construction during the rainy season (November through April) to prevent discharge of sediment-laden runoff into storm water facilities;
- Installation of landscaping as soon as possible after completion of grading to reduce sediment transport during storms;
- Hydroseeding of graded building pads if they are not built upon before the onset of the rainy season;
- Incorporation of structural BMPs (e.g., grease traps, debris, screens, continuous deflection separators, oil/water separators, drain inlet inserts) into the project design to provide detention and filtering of contaminants in urban runoff from the developed site prior to discharge to storm water facilities; and



- Stenciling of catch basins and other publicly visible flood control facilities with the phrase, “Don’t Dump - Pollutes Our Creeks.”

Additionally, prior to construction grading, the project applicant are required to file a Notice of Intent (NOI) to comply with the General Permit and prepare the SWPPP, which addresses the measures that will be included in the project to minimize and control construction and post-construction runoff to the “maximum extent practicable.” Such a notice will be filed for the Overcrossing Project.

Stormwater Pollution Previsions Plans (SWPPPs) would also be prepared, as a separate document, to control short-term construction-related discharge pollutants as required by the CA State Water Resources Control Board Order No. 99-08-DWQ. Project grading plans would conform to the Alameda County Clean Water Program, low impact design (LID) site design measures for water quality protection and would be required to show compliance with the post-construction, long-term requirements of Provision C.3. Project design would be review by the City of Dublin and are subject to City approval. The required SWPPP for the Overcrossing Project will also be reviewed by the Zone 7 Water Agency to ensure adequacy and appropriateness of BMPs.

Typical measures, or their equivalent, will be included in the SWPPP for the overcrossing Project, which will be implemented to prevent storm water pollution and minimize potential sedimentation during construction.

- Restrict grading to dry season (April through October) or use BMPs for wet season erosion control;
- Preclude non-storm water discharges to the storm water system;
- Perform monitoring of discharges to the storm water system;
- Construction practices will include the use of stabilized construction entrances and/or wash racks, street sweeping, use of erosion control devices

**Conclusion.** No new or substantially more severe impacts beyond what was analyzed and addressed in the DCEIR would occur as a result of construction and operation of the overcrossing structure and user access ramps.

- b) Substantially decrease groundwater supplies or substantially interfere with groundwater recharge such that the project may impede sustainable management of the basin?

The Overcrossing Project could affect groundwater supplies in three ways: use of water during construction, use of water during operations, and increasing impervious surface area leading to reduction in groundwater recharge.

Water use during construction will occur during an estimated 60-day construction period primarily during site excavation and grading to reduce fugitive dust and emissions of PM<sub>10</sub> and



PM<sub>2.5</sub>. Only minor intermittent use of water may be required as part of long-term maintenance of the bridge structure and its approaches. The DCEIR determined that water used during site grading and construction of the 189-acre Dublin Crossing Specific Plan would not result in significant impacts. Because grading and earthmoving activities associated with the Overcrossing Project would not occur at the same time as grading of the 189-acre Specific Plan area, no significant impacts would result from the Overcrossing project.

The DCEIR concluded that development associated with the Dublin Crossing Specific Plan would not increase impervious areas to the extent adverse impacts to the amount of available groundwater would result. While the DCEIR does not specifically quantify increased impervious surface area, the development of up to 1,995 dwelling units and 200,000 square feet of commercial uses along with required parking areas, a 12-acre school, and 23.8 acres of roadways would represent approximately 62 acres of impervious surface area. Because of the very small increase in impervious surface area that would result from the Overcrossing Project (approximately 0.3 acres), its construction and operation would not affect groundwater or groundwater recharge and impacts would remain less than significant.

**c1) 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 addition of impervious surfaces in a manner that would result in substantial on- or off-site erosion or siltation?**

The project site is generally flat and not adjacent to any steep slopes. The project would require minimal soil disturbance within the project area to prepare foundations and footings for a free-span bridge structure and associated ramps designed to create access to and from the overcrossing. This minor amount of soil disturbance, combined with implementation of best management practices during construction, would not result in any substantial soil erosion or siltation.

**c2) Substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?**

The DCEIR concludes that development of the 189-acre Specific Plan area for residences, commercial uses, parks and schools would substantially increase the impervious surface area, thereby altering the existing drainage pattern and amount of surface runoff resulting in a potential increase in peak storm water flows (i.e., 10- and 100-year storm events). The mitigation measures to address this potentially significant impact, and the associated regulatory requirements for development are identified in the DCEIR and include requirements for the construction of detention basins and storm drainage plans to accommodate the increased runoff associated with the development of the 189 acres in the Specific Plan area.

The Overcrossing Project's free-span bridge structure foundations and footings and the user access ramps would create minimal additional impervious surface area (approximately 0.3 acres) which would not result in an exceedance of the capacity of existing or planned stormwater drainage systems.



**c3) Create or contribute to runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?**

Construction of footings, foundation and user access ramps would involve grading and excavation would have the potential to create storm runoff during construction. However, compliance with regulatory requirements included in the DCEIR as summarized above would not result in any new or substantially more severe impacts associated with water quality and runoff beyond what was analyzed and addressed for the Specific Plan's 189-acre development. Rain falling directly onto the bridge structure would flow down the approach ramps on either side of Dublin Boulevard rather than directly onto Dublin Boulevard. Because the portion of the bridge structure directly above Dublin Boulevard is small in area (less than 0.1 acres) and does not increase impervious surface area within the project site, such diversion of rain water from Dublin Boulevard to the north and south approach ramps would not cause the capacity of any existing or planned stormwater drainage facility to be exceeded. In addition, because the bridge and approach ramps would be open only to non-motorized traffic, the Overcrossing Project would not represent a substantial additional source of polluted runoff.

**c4) Impede or redirect flood flows?**

The overcrossing project does not include any structures that might impede flood flows.

**d) In a flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?**

The project is located more than 14 miles from the shore of the San Francisco Bay and approximately 32 miles from the Pacific Ocean. In addition, there are no large water bodies in the vicinity of the project area. Therefore, the proposed project would not be affected by a tsunami or seiche.

**e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?**

The proposed Overcrossing Project would comply with all applicable water quality requirements and would not decrease groundwater supplies or substantially interfere with groundwater recharge such that the project may impede sustainable management of the basin. Thus, the proposed project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

**Conclusion**

The Overcrossing Project would not result in any new or substantially more severe significant impacts from flooding.



**Land Use and Planning**

ENVIRONMENTAL IMPACTS Issues	New or Substantially More Severe Significant Impact	Mitigation Measure Previously found to be Infeasible or Declined by Project Proponent now Proposed	New or Substantially More Severe Significant Impact Avoided with Mitigation Incorporated	No New or Substantially More Severe Significant Impact
<b>11. LAND USE AND PLANNING — Would the project:</b>				
a) Physically divide an established community?				<input checked="" type="checkbox"/>
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?				<input checked="" type="checkbox"/>

**Existing Setting**

Land uses along both sides of Dublin Boulevard include a mix of commercial, industrial and residential uses. Lands immediately to the west are zoned M-1 light Industrial and to the east the designation is Priority Development area. The land use north of Dublin Boulevard within the project area is a community park zoned Open Space/Parks (P) that includes a 30-acre community park (Don Biddle Park). The park is a gathering place for the residents of Dublin Crossing and the broader community of Dublin. The project area also is centered along the Iron Horse Regional Trail which is an existing multi-use pathway that runs north-south through Contra Costa and Alameda Counties, connecting the cities of Concord, Walnut Creek, San Ramon, Dublin, Pleasanton, Livermore, and the Town of Danville; and is managed by the East Bay Regional Parks District.

**Summary of Dublin Crossing Specific Plan EIR Findings**

The DCEIR concluded that development of the 189-acre Specific Plan area would not conflict with planning documents, is compatible with adjacent land uses in terms of scale of development, noise, traffic, and hours of operation compared with existing conditions, and would not physically divide an established community.

The DCEIR requires that development in the Specific Plan area would be subject to the City's design review process, including formal Site Development Review. The DCEIR concludes that implementation of the development standards and design guidelines would ensure compatibility with existing and potential adjacent uses.



With implementation of the development standards and design guidelines and implementation of a formal Site Design Review, the DCEIR concluded that build out of the Specific Plan would be compatible with existing and potential adjacent land uses and would not physically divide an established community.

### Impacts Evaluation

a) Would the project physically divide an established community?

The Iron Horse Trail overcrossing project would facilitate safe crossing of Dublin Boulevard for users of the Iron Horse Trail and as such would serve to better connect and not divide established communities. The Overcrossing Project would be subject to the design guidelines and standards included in the DCEIR which prevent incompatibility with adjacent and future land uses in the vicinity.

**Conclusion.** No new or substantially more severe significant impact would occur.

b) Would the project conflict with the General Plan or other applicable City land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

The overcrossing project is included in the DCEIR as a mitigation measure. The overcrossing project is consistent with City land use, policy, and regulations and would be subject to design guidelines included in the Dublin Crossing Specific Plan.

**Conclusion.** No new or substantially more severe significant impact.



**Mineral Resources**

ENVIRONMENTAL IMPACTS Issues	New or Substantially More Severe Significant Impact	Mitigation Measure Previously found to be Infeasible or Declined by Project Proponent now Proposed	New or Substantially More Severe Significant Impact Avoided with Mitigation Incorporated	No New or Substantially More Severe Significant Impact
<b>12. MINERAL RESOURCES — Would the project:</b>				
a) Result in the loss of availability of a known mineral resource that would be either locally important or of value to the region and the residents of the state?				☒

**Existing Setting**

The DCEIR concludes there are no mineral resources in the DCSP area which includes the Don Biddle Community Park and the project area north of Dublin Boulevard. Mineral resources do not exist on the project area south of Dublin Boulevard (DOC 2018).

**Impacts Evaluation**

- a) Would the project result in the loss of availability of a known mineral resource that would be either locally important or of value to the region and the residents of the state?

Because there are no known mineral resources within the project area, no impacts would result from the Overcrossing Project.

**Source(s)**

California Department of Conservation (DOC), California Geological Survey,  
<http://www.conservation.ca.gov/cgs/minerals/mlc/Pages/Index.aspx>, accessed November 5, 2018.



## Noise

ENVIRONMENTAL IMPACTS Issues	(1) New or Substantially More Severe Significant Impact	(2) New Information Indicates that a Mitigation Measure or Alternative that was Previously found to be Infeasible or Declined by Project Proponent is now Proposed	(3) New or Substantially More Severe Significant Impact Avoided with Mitigation Incorporated	(4) No New or Substantially More Severe Significant Impact
<b>13. NOISE — Would the project:</b>				
a) Result in generation of 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?				<input checked="" type="checkbox"/>
b) Result in generation of excessive groundborne vibration or groundborne noise levels?				<input checked="" type="checkbox"/>
c) Exposure of people residing or working in the project area to excessive noise levels from a private airstrip, public airport, or public use airport?				<input checked="" type="checkbox"/>

## Existing Setting

## Mobile and Stationary Noise Sources

Both mobile and stationary noise sources contribute to the existing noise levels within the project area. The primary noise sources are mobile noise sources from car and truck traffic with high volumes of traffic along Interstate 580 (I-580), Interstate 680 (I-680), and noise automobile traffic from adjacent Dublin Boulevard and from vehicles using Scarlett Drive, which will be completed and in use at the time construction is initiated in the project area. Another mobile source of noise, the BART station, is located approximately 1,500 feet south of the project boundary. The station is located within the median of I-580 and any associated noise is generally masked by freeway traffic noise which is audible from the project site. The primary



stationary noise sources are the adjacent commercial and residential uses and includes parking lot noise, as well as heating, ventilation, and air conditioning equipment.

### Sensitive Receptors

Land uses that are considered sensitive receptors to noise include residential areas, schools, hospitals, churches, recreational areas, and transient lodging. Residential areas are also considered particularly sensitive to noise during the nighttime hours. Sensitive receptors for the Overcrossing Project would include park users, trail users, and the adjacent residential uses located east of the Iron Horse Trail on the south side of Dublin Boulevard.

## Regulatory Setting

### State of California Guidelines

The State of California Office of Planning and Research (OPR) Noise Element Guidelines include recommended interior and exterior level standards for local jurisdictions to identify and prevent the creation of incompatible land uses due to noise. The OPR Guidelines describe the compatibility of various land uses with a range of environmental noise levels in terms of dBA CNEL.

According to the Office of Planning and Research (OPR) Guidelines, single-family homes are considered to be “normally acceptable” in exterior noise environments up to 60 CNEL and “conditionally acceptable” up to 70 CNEL. Multiple-family residential uses are “normally acceptable” up to 65 CNEL and “conditionally acceptable” up to 70 CNEL. The State indicates that locating residential units, parks, and institutions (such as churches, schools, libraries, and hospitals) in areas where exterior ambient noise levels exceed 65 dBA CNEL is undesirable. The OPR recommendations also note that, under certain conditions, more restrictive standards than the maximum levels cited may be appropriate. As an example, the standards for quiet suburban and rural communities may be reduced by 5 to 10 dB to reflect their lower existing outdoor noise levels in comparison with urban environments.

### City of Dublin Municipal Code

The City’s Municipal Code includes standards pertaining to noise control within the City. Municipal Code Section 5.28.020 prohibits any person within the City to make any loud, or disturbing, or unnecessary, or unusual or habitual noise or any noise which annoys or disturbs or injures or endangers the health, repose, peace or safety of any reasonable person of normal sensitivity present in the area. As noted in the DCEIR, the noise standards set forth in the Municipal Code pertain to stationary sources and do not apply to construction noise. In addition, the standards set forth in the General Plan Noise element do not address noise from trails or construction activities.



Section 8.36.060(C)(3) states that for lots 5,000 square feet or larger, mechanical equipment that generates noise when located within a required setback as allowed by this subsection, and within 10 feet of an existing or potential residence, or an existing paved patio area on adjoining property, shall be enclosed as necessary to reduce noise at the property line to a maximum of 50 dBA at any time.

#### Summary of Dublin Crossing Specific Plan EIR Noise Impacts

The DCEIR concludes that buildout of the 189-acre Specific Plan area would have the potential to increase noise levels by 3 dBA or more, would exceed the City's noise standard, and that short-term construction noise would impact nearby sensitive receptors.

Mitigation measures set forth in the DCEIR to address significant potential noise impacts are summarized below:

- **DCEIR Mitigation Measure 3.10-1a: Prepare Construction Noise Management Plan.**  
The project applicant shall prepare a construction noise management plan that identifies measures to be taken to minimize construction noise on surrounding sensitive receptors (e.g., residential uses and schools) and includes specific noise management measures to be included into project plans and specifications subject to review and approval by the City. These measures shall include, but not be limited to the following:
  - All construction equipment shall be equipped with mufflers and sound control devices (e.g., intake silencers and noise shrouds) no less effective than those provided on the original equipment and no equipment shall have an un-muffled exhaust.
  - The contractor shall maintain and tune-up all construction equipment to minimize noise emissions.
  - Stationary equipment shall be placed so as to maintain the greatest possible distance to the sensitive receptors.
  - All equipment servicing shall be performed so as to maintain the greatest possible distance to the sensitive receptors.
  - The project applicant(s) shall provide, to the satisfaction of the City of Dublin Planning Department, a qualified "Noise Disturbance Coordinator." The Noise Disturbance Coordinator shall be responsible for responding to any local complaints about construction noise. When a complaint is received, the Disturbance Coordinator shall notify the City within 24 hours of the complaint and determine the cause of the noise complaint (e.g., starting too early, malfunctioning muffler, etc.) and shall implement reasonable measures to resolve the complaint, as deemed acceptable by the Dublin Planning Department. If any notices are sent to residential units immediately surrounding the construction site by the City and all signs posted



- at the construction site shall include the contact name and the telephone number for the Noise Disturbance Coordinator.
- Select demolition methods to minimize vibration, where possible (e.g., sawing masonry into sections rather than demolishing it by pavement breakers).
  - **DCEIR Mitigation Measure 3.10-1b: Construction Routes Less Disruptive to Sensitive Receptors.** Construction trucks shall utilize a route that is least disruptive to sensitive receptors, preferably major roadways (I-580, I-680, Dublin Boulevard, Dougherty Road, and Arnold Road). Construction trucks should, to the extent practical, avoid the weekday and Saturday a.m. and p.m. peak hours (7:00 a.m. to 9:00 a.m. and 4:00 p.m. to 6:00 p.m.)

### Impacts Evaluation

- a) Would the project result in generation of 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?

#### Construction Noise

Noise generated by project construction activities would have a temporary duration (approximately 60 days). Construction-related noise will be generated by vehicular traffic related to onsite workers and delivery of construction materials (including the bridge structure itself), excavation for footings, construction of bridge piers and the trail, and placement of the bridge structure over Dublin Boulevard. The noise levels that would be generated by the Overcrossing Project would be similar to the noise levels addressed in the DCEIR for site construction and operation of heavy-duty trucks, backhoes, and other heavy-duty construction equipment. Because of the variability in daily construction operations (types and amount of equipment and their location at any given time), noise levels from project construction cannot be accurately estimated. Typical noise levels from construction activities are illustrated in Table 3, and typical noise levels from specific types of construction equipment are illustrated in Table 4.

Construction of the Overcrossing Project would have a shorter duration and use fewer pieces of noise-generating equipment than would the large-scale construction of the 189-acre Specific Plan area analyzed in the DEIR. The Overcrossing Project would also not require use of large earthmoving equipment for site grading as would be required for the Specific Plan area. Construction activities for the Overcrossing Project would be conducted during weekday daytime hours with the exception of installation of the bridge structure over Dublin Boulevard. Because installation of the bridge structure, which would be constructed offsite before being delivered to the project site, would require closure of Dublin Boulevard, the bridge structure would be installed in a single overnight operation. In addition, construction of the Overcrossing



**Table 3. Typical Construction Activity Noise Levels**

Phase	Noise Level (L <sub>eq</sub> ) at 50 Feet <sup>a</sup>	Noise Level (L <sub>eq</sub> ) at 200 Feet	Noise Level (L <sub>eq</sub> ) at 400 Feet	Noise Level (L <sub>eq</sub> ) at 1,600 Feet
Ground Clearing	84	75	66	54
Excavation	89	80	71	59
Foundations	78	69	60	48
Erection	85	76	67	56
Exterior Finishing	89	80	71	59

NOTES: L<sub>eq</sub> = equivalent sound level.

<sup>a</sup> 50-foot estimates correspond to a distance of 50 feet from the noisiest piece of equipment associated with a given phase and 200 feet from the other equipment associated with that phase.

SOURCE: Bolt, Baranek, and Newman, 1971.

**Table 4. Typical Noise Levels From Construction Equipment**

Construction Equipment	Noise Level (dBA, L <sub>eq</sub> at 50 Feet)
Dump truck	88
Portable air compressor	81
Concrete mixer (truck)	85
Scraper	88
Jackhammer	88
Dozer	87
Paver	89
Generator	76
Backhoe	85

NOTES: dBA = A-weighted decibels. L<sub>eq</sub> = equivalent sound level.

SOURCE: FTA, 2006.

Project would not overlap the noisiest portion of Specific Plan construction activities such as major grading operations. The Overcrossing Project would comply with all construction noise-related mitigation measures set forth in the DCEIR.

### Operational Noise

Because the trail would be used by pedestrians and bicyclists, the Overcrossing Project would not result in long-term stationary noise impacts on sensitive receptors.

**Conclusion.** No new or substantially more severe impacts would result from the Overcrossing Project.



**b) Result in a generation of excessive groundborne vibration or groundborne noise levels?**

Project construction can generate varying degrees of ground-borne vibration, depending on the construction procedure and the construction equipment used. Operation of construction equipment generates vibrations that spread through the ground and diminish in amplitude with distance from the source. The effect on buildings located in the vicinity of the construction activities often varies depending on soil type, ground strata, and construction characteristics of the receiver building(s). The results from vibration can range from no perceptible effects at the lowest vibration levels, to low rumbling sounds and perceptible vibration at moderate levels, to slight damage at the highest levels. Ground-borne vibrations from construction activities rarely reach levels that damage structures.

The Federal Transit Administration (FTA) has published standard vibration velocities for construction equipment operations. In general, the FTA architectural damage criterion for continuous vibrations (i.e., 0.2 inch/second) appears to be conservative.

The types of construction vibration impact include human annoyance and building damage. Ordinary buildings that are not particularly fragile would not experience any cosmetic damage (e.g., plaster cracks) at distances beyond 30 feet. This distance can vary substantially depending on the soil composition and underground geological layer between vibration source and receiver. In addition, not all buildings respond similarly to vibration generated by construction equipment.

Ground-borne vibration decreases rapidly with distance. As indicated in the DCEIR, based on the FTA data, vibration velocities from typical heavy construction equipment operations that would be used during project construction range from 0.003 to 0.089 inch-per-second peak particle velocity (PPV) at 25 feet from the source of activity. The DCEIR estimated the closest structures to the project construction activities would be approximately 50 feet away. At 50 feet from the source of activity, the DCEIR concluded that construction-related vibration velocities would range from 0.001 to 0.031 inch-per-second PPV, well below the 0.2 inch-per-second PPV significance threshold. The DCEIR thus concluded that vibration impacts associated with construction would be less than significant.

Construction of the Overcrossing Project would not involve the use of large bulldozers<sup>2</sup> for site grading analyzed in the DCEIR for grading of the Specific Plan area. In addition, construction activities for the Overcrossing Project would be separated by a minimum of approximately 70 feet from the closest structures, which are located along the south side of Dublin Boulevard east of the existing Iron Horse trail.

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<sup>2</sup> Over the various types of construction equipment analyzed in the DCEIR, large bulldozers would generate the greatest vibration impacts.



**Conclusion.** No new or substantially more severe impacts would result from the Overcrossing Project.

- c) Would the project expose people residing or working in the area to excessive noise levels from a private airstrip, public airport, or public use airport?

The closest airport to the project area is the Livermore Municipal Airport which is located approximately 3.5 miles east of the project area. According to the Livermore Municipal Airport Master Plan, the City of Dublin is not located within the approach zones and is not located within an unacceptable noise contour as defined in the City's plan. Therefore, the proposed project would not expose residents or workers in the project area to excess airport-related noise.

**Conclusion.** No impacts would result from the Overcrossing Project.



## Population and Housing

ENVIRONMENTAL IMPACTS Issues	(1) New or Substantially More Severe Significant Impact	(2) New Information Indicates that a Mitigation Measure or Alternative that was Previously found to be Infeasible or Declined by Project Proponent is now Proposed	(3) New or Substantially More Severe Significant Impact Avoided with Mitigation Incorporated	(4) No New or Substantially More Severe Significant Impact
<b>14. POPULATION AND HOUSING — Would the project:</b>				
a) Induce substantial unplanned population growth in the area, either directly or indirectly?				☒
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?				☒

## Existing Setting

The DCEIR concludes that, although the Dublin Crossing Specific Plan would increase the population in the City, the proposed Specific Plan would be consistent with the nature of surrounding development; would be within the estimate of population growth per the City of Dublin Housing Element.

## Impacts Evaluation

- a) Would the project 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)?

The Overcrossing Project does not include any residential uses that would directly generate population growth. The Overcrossing Project would enhance the desirability of the Iron Horse Trail by eliminating an awkward at-grade crossing. However, it would be highly unlikely that such an improvement to the trail would be sufficient to indirectly induce population growth in the area beyond that anticipated in the DCEIR.



- b) Would the project displace substantial numbers of existing housing or people, necessitating the construction of replacement housing elsewhere?

The Overcrossing Project includes the construction and operation of a pedestrian and bicycle bridge and would not displace any existing housing or people.



**Public Services**

ENVIRONMENTAL IMPACTS Issues	(1) New or Substantially More Severe Significant Impact	(2) New Information Indicates that a Mitigation Measure or Alternative that was Previously found to be Infeasible or Declined by Project Proponent is now Proposed	(3) New or Substantially More Severe Significant Impact Avoided with Mitigation Incorporated	(4) No New or Substantially More Severe Significant Impact
<b>15. PUBLIC SERVICES — Would the project:</b>				
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered facilities in order to maintain acceptable service ratios, response times, or other performance objectives for any of the following:				
i) Fire protection?				<input checked="" type="checkbox"/>
ii) Police protection?				<input checked="" type="checkbox"/>
iii) Schools?				<input checked="" type="checkbox"/>
iv) Parks?				<input checked="" type="checkbox"/>
v) Other public facilities?				<input checked="" type="checkbox"/>

**Existing Setting****Fire Protection Services**

The project area is served by the Alameda County Fire Department (ACFD), which provides fire protection and suppression services under contract to the City of Dublin. ACDF has 28 fire stations, three of which are located in the City of Dublin. Station No. 17, located at 6200 Madigan Avenue, provides service to the west, and central core sections of Dublin and would provide initial response to the project area. This station, which is located approximately 1.3 miles northeast of the project site, houses one engine and one truck company and could respond to a request for service within five minutes.



### Police Protection Services

Police services for the City of Dublin are performed under contract by Alameda County Sheriff personnel located at the Dublin Civic Center, 100 Civic Center Plaza.

### Libraries

The Dublin Public Library is located at 200 Civic Plaza and is a partnership between the City of Dublin and the Alameda County Library.

### Parks/Recreation Facilities

The City of Dublin's current park system includes thirteen parks and two open space areas. The City's Parks and Community Services Department manages park planning and development, and the Public Works Department coordinates park maintenance.

In addition to the Iron Horse Regional Trail, the City's existing trail network consists of bikeways located along Amador Valley Boulevard, Village Parkway, San Ramon Road, Alamo Creek, Dublin Boulevard, Tassajara Creek and Dougherty Road, a public local trail along Martin Canyon Creek, and a regional trail link along the Iron Horse Trail.

## Impacts Evaluation

- a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the 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 public services?

The Overcrossing Project would be constructed to current California Building Code standards and would not involve the provision of any new or physically altered governmental facilities other than the bridge crossing itself. By improving the trail crossing of Dublin Boulevard, there may be an increase in trail use, which could in turn, result in increased police and fire service requests. The number of such calls for service would be minimal compared to the number of calls for service analyzed in the DCEIR for the development of 1,995 residential units, 200,000 square feet of commercial uses, the 30-acre Don Biddle Park and a 5-acre neighborhood park, and a 12-acre elementary school for which the DCEIR determined impacts to be less than significant. In addition, the added safety for trail users of replacing an awkward at-grade crossing of Dublin Boulevard with a grade-separated overcrossing might reduce any potential increase in calls for service resulting from the proposed project. The proposed Overcrossing Project does not involve development of residential uses and would not, therefore, generate any demand for school or library facilities. Because the proposed project involves enhancement of an existing recreational trail, no impacts in relation to recreational facilities would result.



## Conclusion

The Overcrossing Project would not result in any new or substantially more severe significant impacts in relation to public services.



**Recreation**

ENVIRONMENTAL IMPACTS Issues	(1) New or Substantially More Severe Significant Impact	(2) New Information Indicates that a Mitigation Measure or Alternative that was Previously found to be Infeasible or Declined by Project Proponent is now Proposed	(3) New or Substantially More Severe Significant Impact Avoided with Mitigation Incorporated	(4) No New or Substantially More Severe Significant Impact
<b>16. RECREATION — Would the project:</b>				
a) Increase the demand for existing parks or other recreational facilities such that substantial physical deterioration of such a facility could occur or be accelerated?				☒
b) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				☒

**Existing Setting****Parks/Recreation Facilities**

The City of Dublin's current park system includes thirteen parks and two open space areas. The City's Parks and Community Services Department manages park planning and development, and the Public Works Department coordinates park maintenance.

In addition to the Iron Horse Regional Trail, the City's existing trail network consists of bikeways located along Amador Valley Boulevard, Village Parkway, San Ramon Road, Alamo Creek, Dublin Boulevard, Tassajara Creek and Dougherty Road, a public local trail along Martin Canyon Creek, and a regional trail link along the Iron Horse Trail.



## Impacts Evaluation

- a) Would the project increase the demand for existing parks or other recreational facilities such that substantial physical deterioration of such a facility could occur or be accelerated?

Connections between the Iron Horse Regional Trail and Don Biddle Park were anticipated as part of the design of the Dublin Crossing Specific Plan. While some pedestrians and bicyclists using the Iron Horse Trail might also utilize Don Biddle Park, the construction and operation of the Overcrossing Project would not be likely to increase such use or to cause substantial deterioration of the park once its construction is complete because:

- The proposed project does not involve development of new housing that generate demand for park facilities;
- Use of Don Biddle Park by trail users was contemplated in the original design of the Dublin Crossing Specific Plan and the park; and
- The primary use of the trail at Dublin Boulevard would be for pedestrian and bicycle movement, and in particular, for access to and from the Dublin/Pleasanton BART station.

- b) Would the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

The Overcrossing Project is itself a recreational facility, the physical environmental effects of which are addressed throughout this document.

## Conclusion

No new or substantially more severe Impacts to recreational facilities would result from the Overcrossing Project.



## Transportation and Traffic

ENVIRONMENTAL IMPACTS Issues	(1) New or Substantially More Severe Significant Impact	(2) New Information Indicates that a Mitigation Measure or Alternative that was Previously found to be Infeasible or Declined by Project Proponent is now Proposed	(3) New or Substantially More Severe Significant Impact Avoided with Mitigation Incorporated	(4) No New or Substantially More Severe Significant Impact
<b>17. TRANSPORTATION AND TRAFFIC — Would the project:</b>				
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, pedestrian and bicycle facilities?				<input checked="" type="checkbox"/>
b) Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?				<input checked="" type="checkbox"/>
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses?				<input checked="" type="checkbox"/>
d) Result in inadequate emergency access?				<input checked="" type="checkbox"/>

## Existing Setting

### Dublin Boulevard

Dublin Boulevard is primarily a six-lane east/west arterial south of the project area and provides access to residential and commercial/retail areas. According to the Tri-Valley Transportation Plan and Action Plan for Routes of Regional Significance (TVTP), Dublin Boulevard is a route of regional significance. Dublin Boulevard extends from the City limit in the west to Fallon Road in the east.

### Scarlett Drive

Scarlett Drive is a two-lane north/south collector along the northwest border of the project site. Scarlett Drive begins at Dougherty Road and continues southeast to Houston Place where it



terminates near commercial uses approximately 1,100 feet north of Dublin Boulevard. Scarlett Drive continues south of Dublin Boulevard to Scarlett Court. At the time construction of Overcrossing Project is initiated, Scarlett Drive would have been extended from Dublin Boulevard to Houston Place.

#### Bicycle and Pedestrian Facilities

The Iron Horse Trail is an East Bay Regional Park District Regional Trail that consists of a 12-foot-wide asphalt surface and extends from Pleasanton to Concord. Within the City of Dublin, the trail extends from the Dublin/Pleasanton BART station to the San Ramon Border. The Iron Horse Trail intersects with the Alamo Creek Trail, Alamo Canal Trail, and the Dougherty Road bike path.

#### Bay Area Rapid Transit District (BART)

Commuter rail service to Dublin is provided by BART. The closest access to the BART system is located about 0.25 miles south of the project area at the Dublin/Pleasanton Station. BART provides service to San Francisco and many locations in the East Bay. BART is accessible by foot via sidewalks on Dublin Boulevard, Demarcus Boulevard, and Iron Horse Parkway. BART trains operate on 15-minute headways during the commute periods.

#### Summary of Dublin Crossing EIR Traffic Impacts

##### Scarlett Drive and Dublin Boulevard Intersection

The DCEIR concluded that build out of the Specific Plan area would create unacceptable operational conditions at certain intersections including the Scarlett Drive and Dublin Boulevard intersection adjacent to the project area. This potential significant impact would occur due to the higher rate of pedestrian/bicyclist crossings at Dublin Boulevard once the Specific Plan area is built out. The DCEIR document concluded that a grade separated crossing could be utilized at this intersection to allow more green time to be allotted to through traffic on Dublin Boulevard. With implementation of the following mitigation measure, the Scarlett Drive and Dublin Boulevard intersection would operate at level of service (LOS) C during the PM peak hour. Therefore, this mitigation measure (below) would reduce this impact to a less than significant level.

- **DCEIR Mitigation Measure 3.12-3: Construction of a Grade Separated Crossing at the Intersection of Scarlett Drive and Dublin Boulevard.** To mitigate the impacts at the intersection of Scarlett Drive and Dublin Boulevard due to higher rate of pedestrians/bicyclists crossings at Dublin Boulevard, a grade separated crossing should be utilized. The grade separated crossing would eliminate the need for at-grade pedestrian actuations at the traffic signal, which would allow more green time to be allocated to through traffic on Dublin Boulevard.



## Dublin Crossing Specific Plan Construction Impacts

### Heavy Vehicle Trips

The DCEIR addresses construction related traffic impacts associated with build out of the Specific Plan area over an estimated time period of eight to twelve years. The construction phase would increase the number of daily truck trips in the project vicinity while the site is graded and materials are delivered. All truck movements to and from the site during construction would likely occur on the arterials and collector streets around the project site. While heavy vehicle traffic is common on arterial streets near industrial, commercial, and high density residential land uses, truck traffic on streets directly adjacent to low density residential development should be minimized to the greatest extent possible. Low density residential development occurs along Scarlett Drive, west of the Specific Plan area, north of Dublin Boulevard. Large numbers of heavy vehicle trips on Scarlett Drive during the construction phase may result in a potentially significant impact. The DCEIR concludes that implementation of the following mitigation measure would reduce this impact to a less than significant level.

- **DCEIR Mitigation Measure 3.12-11: Construction Traffic Mitigation Plan(s).** Prior to the issuance of any grading permit or any permit that authorizes construction activities on the Specific Plan site or construction of off-site improvements relating to the Specific Plan, the project applicants shall provide Construction Traffic Mitigation Plan(s) for City Staff review and approval as part of the permit application. The Mitigation Plan(s) shall include measures to minimize the construction traffic entering the roadway system during periods of peak traffic volumes (i.e., AM and PM Peak Hour). The Mitigation Plan(s) shall also include measures to minimize the number of truck trips on Scarlett Drive and should route heavy vehicle traffic to driveways on Dublin Boulevard and Arnold Road to access the site during the construction phase of the project. At a minimum, the Construction Traffic Mitigation Plan should include the following implementation measures:
  - Construction truck routes shall be prepared to designate principal haul routes for trucks delivering materials to and from the construction site.
  - Should a temporary road and/or lane closure be necessary during construction, the project applicant shall provide traffic control activities and personnel, as necessary, to minimize traffic impacts. This may include detour signage, cones, construction area signage, flagmen, and other measures as required for safe traffic handling in the construction zone.
  - The project applicant shall be required to keep a minimum of one lane in each direction free from encumbrances at all times on perimeter streets accessing the project site. In the event a full road closure is required, the contractor shall coordinate with the City to designate proper detour routes and signage to appropriate proper access routes.



### Lane Closures

During build out of the DCSP, closure of travel lanes on Dublin Boulevard, Scarlett Drive, and Arnold Road may be needed while constructing frontage improvements, intersection improvements for new proposed roadways (G Street, B Street, Central Parkway East, E Street, D Street, and A Street), and traffic signal modifications where new intersection legs are proposed. Closure of travel lanes during peak commute hours could result in restricted traffic flow on the public streets surrounding the project area and the DCEIR concluded that lane closures would be a potentially significant impact and required implementation of the following mitigation measure:

- **DCEIR Mitigation Measure 3.12-12: Restrict Lane Closures Along Dublin Boulevard and Arnold Road to Off-Peak Hours.** During project construction, the lane closures along Dublin Boulevard and Arnold Road shall be restricted to off-peak hours to the greatest extent feasible. In addition, traffic handling plans shall be prepared for construction work in the public right-of-way in accordance with current California Manual on Uniform Traffic Control Devices (MUTCD) standards and guidelines.

### Impacts Evaluation

- a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, pedestrian and bicycle facilities?

The Overcrossing Project implements DCEIR Mitigation Measure 3.12-3, requiring a grade-separated crossing for the Iron Horse trail over Dublin Boulevard. As noted in the DCEIR, the proposed bridge crossing of Iron Horse Trail over Dublin Boulevard is needed for the Scarlett Drive - Dublin Boulevard intersection to operate at an acceptable level of service (LOS) C during the PM peak hour.

The Overcrossing Project would enhance the existing Iron Horse Trail for use by pedestrians and bicyclists and would thus improve non-vehicular access to the Dublin/Pleasanton Station BART Station. The Overcrossing Project does not include any new employment or residential uses that would generate traffic. The project would generate a small amount of temporary traffic during construction from workers and delivery of construction materials, including delivery of the bridge span itself. The only temporary lane closure that would be needed for the proposed project would be for installation of the bridge structure. This structure would be manufactured at an offsite location and delivered to the site. Dublin Boulevard would be closed in both directions overnight for one night while the bridge structure is lifted by crane and installed over Dublin Boulevard. This one-night closure would not conflict with any program, plan, ordinance or policy addressing the area's roadway system.



**b) Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?**

The Overcrossing Project is a grade-separated crossing for the multi-use Iron Horse Trail over Dublin Boulevard. As stated in CEQA Guidelines Section 15064.3 (b)(2), transportation projects that “reduce, or have no impact on, vehicle miles traveled should be presumed to cause a less than significant transportation impact.” Because the proposed overcrossing would enhance bicycle and pedestrian travel, including access to the Dublin/Pleasanton BART station, by replacing an awkward at-grade crossing of Dublin Boulevard with a grade-separated overcrossing the existing, the proposed project would reduce vehicle miles traveled. The proposed project would, therefore, be consistent with CEQA Guidelines Section 15064.3, subdivision (b).

**c) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses?**

The Overcrossing Project would be constructed according to California Building Code and the user access ramps will be subject to ADA requirements. The project would eliminate an awkward at-grade pedestrian and bicycle crossings of Dublin Boulevard with potentially higher exposure of vulnerable users (bicycle and pedestrians) to vehicular traffic. There would be no increase in hazards due to the construction and operation of Overcrossing Project.

**d) Result in inadequate emergency access?**

By improving traffic flow along Dublin Boulevard, the Overcrossing Project would improve emergency access in the area. Dublin Boulevard would be closed in both directions overnight for one night while the bridge structure is lifted by crane and installed over Dublin Boulevard. This one-night closure would constitute the only closure of vehicular travel lanes required for construction of the proposed project. Emergency access along Dublin Boulevard at the Iron Horse Trail would be constrained during installation of the bridge structure. Because the ACFD maintains fire stations both to the west and east within 1.6 miles and 1.3 miles of the project site, respectively, access for emergency fire response would not be adversely affected during bridge installation.

**Conclusion**

The Overcrossing Project would not result in a new or substantially more severe impact to transportation or traffic.



## Utilities and Service Systems

ENVIRONMENTAL IMPACTS Issues	(1) New or Substantially More Severe Significant Impact	(2) New Information Indicates that a Mitigation Measure that was Previously found to be Infeasible or Declined by Project Proponent is now Proposed	(3) New or Substantially More Severe Significant Impact Avoided with Mitigation Incorporated	(4) No New or Substantially More Severe Significant Impact
<b>18. UTILITIES AND SERVICE SYSTEMS — Would the project:</b>				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction of which could cause significant environmental effects?				<input checked="" type="checkbox"/>
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?				<input checked="" type="checkbox"/>
c) Result in a determination by the wastewater treatment provider that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?				<input checked="" type="checkbox"/>
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?				<input checked="" type="checkbox"/>
e) Comply with federal, state, and local statutes or regulations related to solid waste?				<input checked="" type="checkbox"/>

## Existing Setting

The project site is located within a fully urbanized area with the full range of utilities available in the immediate area. The Dublin San Ramon Services District (DSRSD) is the purveyor of potable



water in the City of Dublin. DSRSD also provides recycled (reclaimed) water for irrigation and other non-potable uses. Existing water infrastructure currently serves developed lands adjacent to the project site.

DSRSD provides wastewater collection services in the project vicinity. DSRSD maintains a variety of collection mains within the existing public streets, including Scarlett Drive and Dublin Boulevard serving developed lands adjacent to the project site.

The City of Dublin Public Works Department maintains the City's stormwater drainage facilities located within public street rights-of-way. The Alameda County Water Conservation District Zone 7 owns and operates regional drainage facilities that collect runoff from the City. Engineered swales direct stormwater from the Iron Horse trail into Zone 7 drainage facilities.

Solid waste services are currently provided by Amador Valley Industries and include the collection of waste, recycling, and organics. Solid waste generated by the proposed project would be deposited at the Altamont Landfill, which has a total estimated permitted capacity of 62,000,000 cubic yards and an estimated closure date of January 2029.

Pacific Gas and Electric Company (PG&E) provides electricity and natural gas service to the City of Dublin. PG&E maintains electrical and natural gas facilities within the Dublin Boulevard right-of-way that currently serve developed lands adjacent to the project site.

Comcast currently provides cable television and internet service; AT&T and numerous long-distance telecommunication companies provide telephone and cellular phone service to developed lands adjacent to the project site.

## Regulatory Setting

### Title 22 California Code of Regulations

Senate Bill 610 (Chapter 643, Statutes of 2001) and Senate Bill 221 (Chapter 642, Statutes of 2001) amended state law, effective January 1, 2002, in order to improve the link between information on water supply availability and certain land use decisions made by cities and counties. SB 610 Water Supply Assessments and SB 221 Written Verifications of Water Supply are companion measures, which seek to promote more collaborative planning between local water suppliers and cities and counties. Both statutes require detailed information regarding water availability to be provided to the city and county decision-makers prior to approval of specified large development projects and that the information is included in the administrative record that serves as the evidentiary basis for an approval action by the city or county on such projects.



### Clean Water Act

The Federal Water Pollution Control Act Amendments of 1972 (CWA (33 U.S.C 1251 et seq.)) have as their goal restoration of the physical, chemical, and biological integrity of the nation's waters. The primary regulatory mechanism to achieve this goal in the National Pollutant Discharge Elimination System (NPDES). The Clean Water Act requires that parties seeking to discharge pollutants into waters of the United States obtain a permit under the NPDES. Responsibility for implementing the NPDES program in California has been delegated to the State.

### Integrated Waste Management Act

The Integrated Waste Management Act (AB 939) mandates that communities reduce their solid waste. The Act requires local jurisdictions to divert 25 percent of their solid waste by 1995 and 50 percent by 2000, compared to a baseline of 1990. AB 939 also establishes an integrated framework for program implementation, solid waste planning, and solid waste facility and landfill compliance.

### Impacts Evaluation

- a) Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction of which could cause significant environmental effects?

The Overcrossing Project consists of approach ramps and a bridge structure and does not include any landscaped areas that would require irrigation. Thus, the proposed project would not consume water following construction, nor would the project generate any wastewater. Thus, construction of new or expanded water or wastewater facilities would not be required. Electrical infrastructure is available along Dublin Boulevard. As discussed in relation to Energy Resources, above, a minimal amount of energy will be required for lighting of the bridge and approach structures. This would require connection to the existing electrical utility facilities within the Dublin Boulevard right-of-way. The physical impacts of such a connection are minor and would not require any physical changes to the environment beyond those described and analyzed throughout this document. The proposed project would require any modification to existing natural gas or telecommunications facilities. Thus, no new or substantially more severe significant impacts would occur.

- b) Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?

The Overcrossing Project would not use any potable water other than during site construction and would not require additional water supplies or new or expanded entitlements. As demonstrated in the Water Supply Assessment for the Dublin Crossing Specific Plan, sufficient water supplies available to serve that project and reasonably foreseeable future development



during normal, dry, and multiple dry years. Thus, no new or substantially more severe significant impacts would occur.

- c) Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

The Overcrossing Project would not generate any wastewater and no wastewater capacity would be required.

- d,e) Would the project 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?

The Overcrossing Project would generate solid waste in the form of asphalt from removal of portions of the existing trail, wood debris, concrete, and trash generated by construction workers. Pursuant to the requirements of Municipal Code Chapter 7.30, a minimum of 50 percent of waste generated during construction will be recycled. Following construction, the proposed project would not generate solid waste. Construction waste generated by the project would be disposed of in accordance with state and local regulations and would not exceed the permitted capacity of existing landfills.

## Conclusion

The Overcrossing Project would not result in any demands for utility or service systems that would require the construction of new infrastructure or facilities or the expansion of existing facilities. Thus, no new or substantially more severe significant impacts would occur.



## Mandatory Findings of Significance

ENVIRONMENTAL IMPACTS Issues	(1) New or Substantially More Severe Significant Impact	(2) New Information Indicates that a Mitigation Measure or Alternative that was Previously found to be Infeasible or Declined by Project Proponent is now Proposed	(3) New or Substantially More Severe Significant Impact Avoided with Mitigation Incorporated	(4) No New or Substantially More Severe Significant Impact
<b>19. MANDATORY FINDINGS OF SIGNIFICANCE — Would the project:</b>				
a) Does the project have the potential to 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?				<input checked="" type="checkbox"/>
b) Does the project have impacts that are individually limited, but cumulatively considerable?				<input checked="" type="checkbox"/>
c) Does the project have environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly?				<input checked="" type="checkbox"/>

## Impacts Evaluation

- a) Does the project have the potential to 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?

The preceding analysis of Biological Resources, as well as analyses of Cultural and Tribal Cultural Resources demonstrate that proposed Overcrossing Project would not result in a new



significant impact or cause any significant impact disclosed in the Dublin Crossing EIR to become substantially more severe in relation to degradation of 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.

**b) Does the project have impacts that are individually limited, but cumulatively considerable?**

The preceding analyses for each environmental issue demonstrate that the addition of impacts of the proposed Overcrossing Project to those of the Dublin Crossing Specific Plan would not result in a new significant impact or cause any significant impact disclosed in the Dublin Crossing EIR to become substantially more severe. Thus, addition of the impacts of the Overcrossing Project to those of the Dublin Crossing Specific Plan would not cause the contribution of the Specific Plan to any significant cumulative impact disclosed in the DCEIR to become cumulatively considerable, nor would any cumulatively considerable contribution to a significant cumulative impact disclosed in the DCEIR become substantially more severe. In addition, given how minor the impacts of the proposed Overcrossing Project are compared to those of the Dublin Crossing Specific Plan and to those of the cumulative impacts addressed in the DCEIR, the addition of the proposed project to the summary of projections in the adopted City of Dublin General Plan (updated May 2013), the City's Capital Improvement Program, and implementation of the Camp Parks Master Plan, which together formed the basis for the cumulative impacts analysis set forth in the DCEIR, would not cause any less than significant cumulative impact to become significant, nor would any significant cumulative impact become substantially more severe.

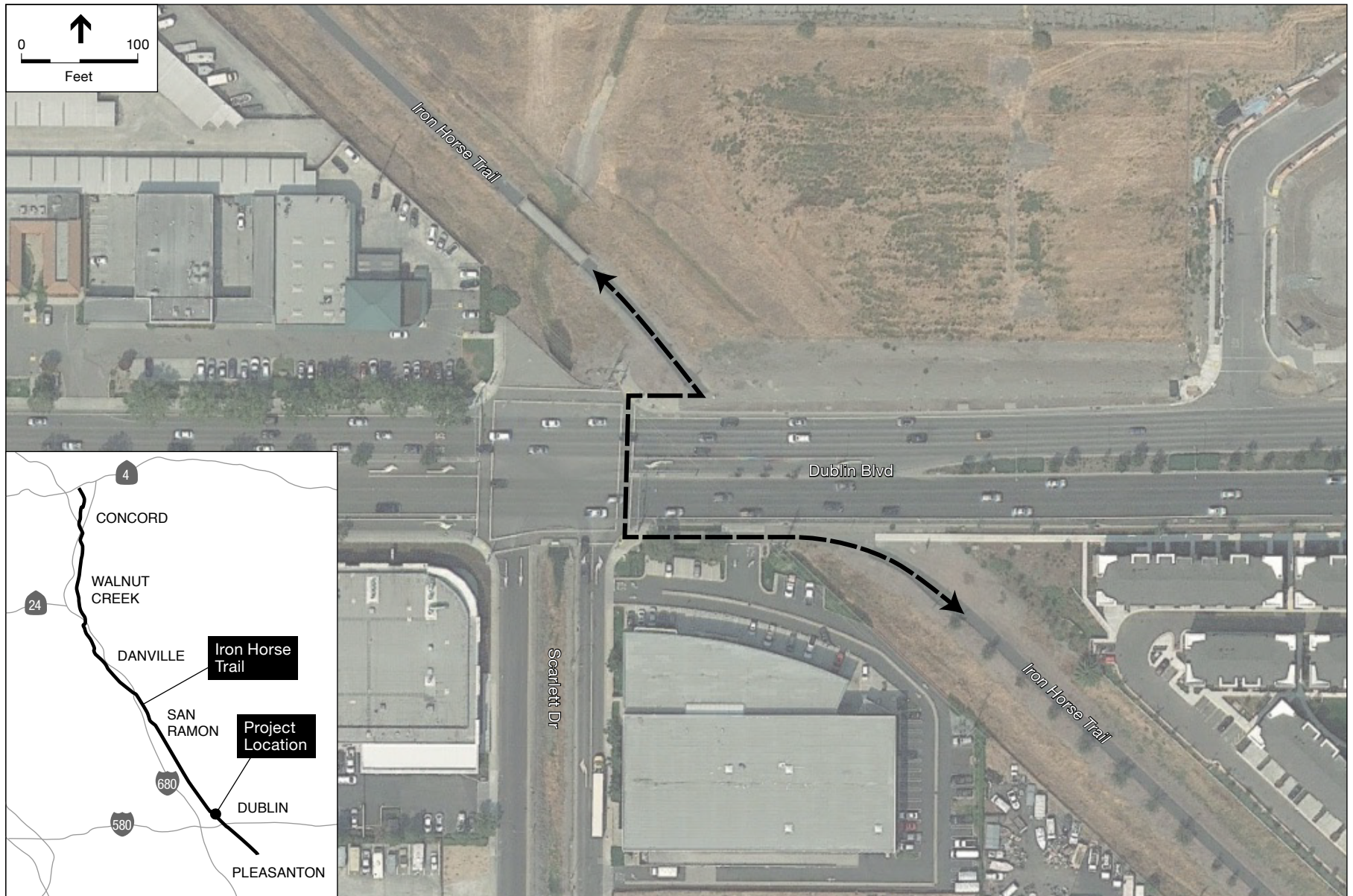
**c) Does the project have environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly?**

The preceding analyses for each environmental issue demonstrate that the impacts of the proposed Overcrossing Project would not cause any substantial adverse effect on human beings, nor would any of the substantial adverse effects disclosed in the DCEIR become substantially more severe as the result of the proposed project.

## **Conclusion**

The preceding analyses for each environmental issue demonstrate that the impacts of the proposed Overcrossing Project would not result in a new significant impact or cause any significant impact disclosed in the Dublin Crossing EIR to become substantially more severe.



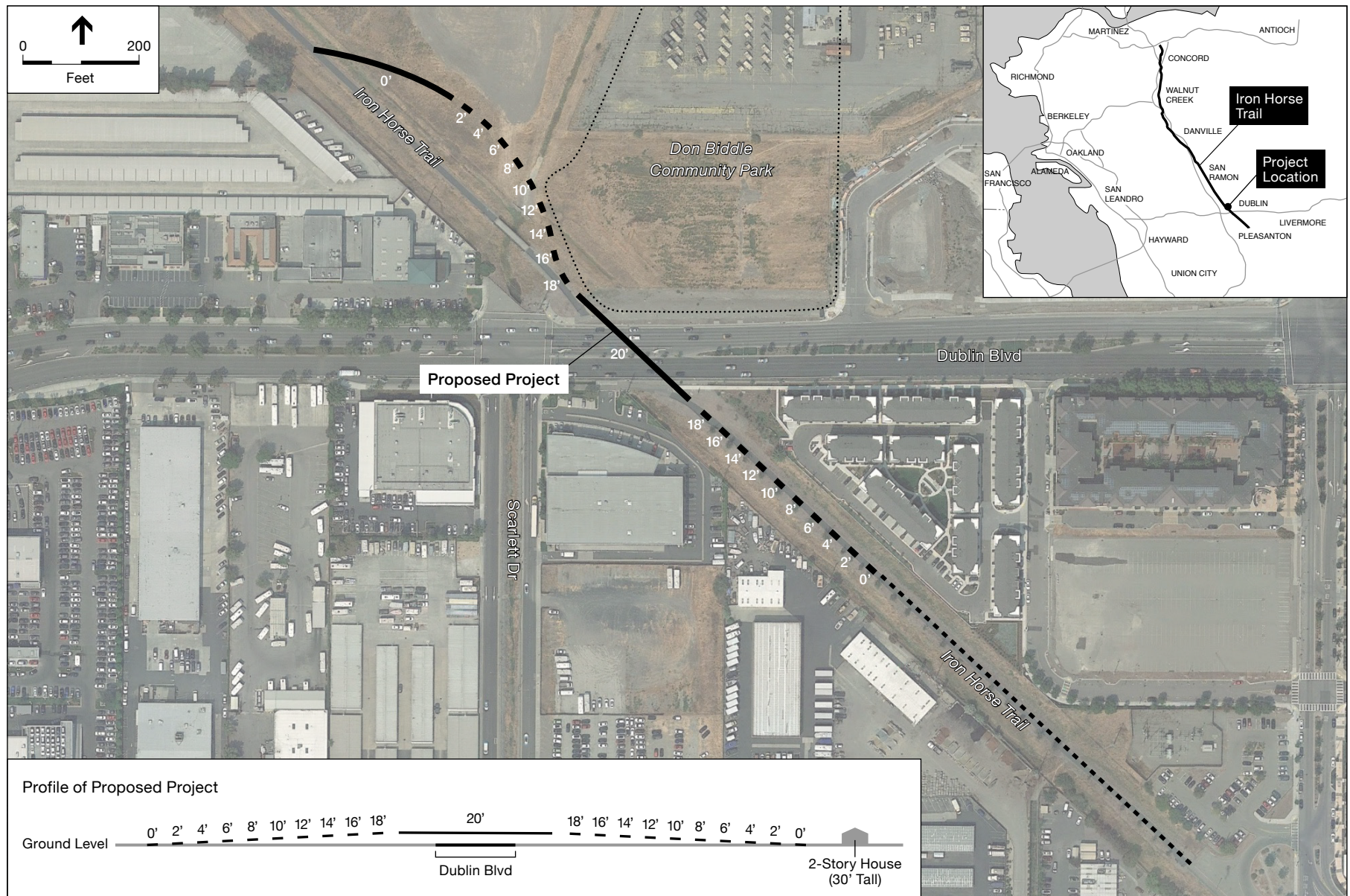


Iron Horse Trail – Dublin Boulevard Overcrossing Project

**Figure 1:** Existing Conditions for Crossing at Dublin Boulevard

SOURCE: Google Earth Pro



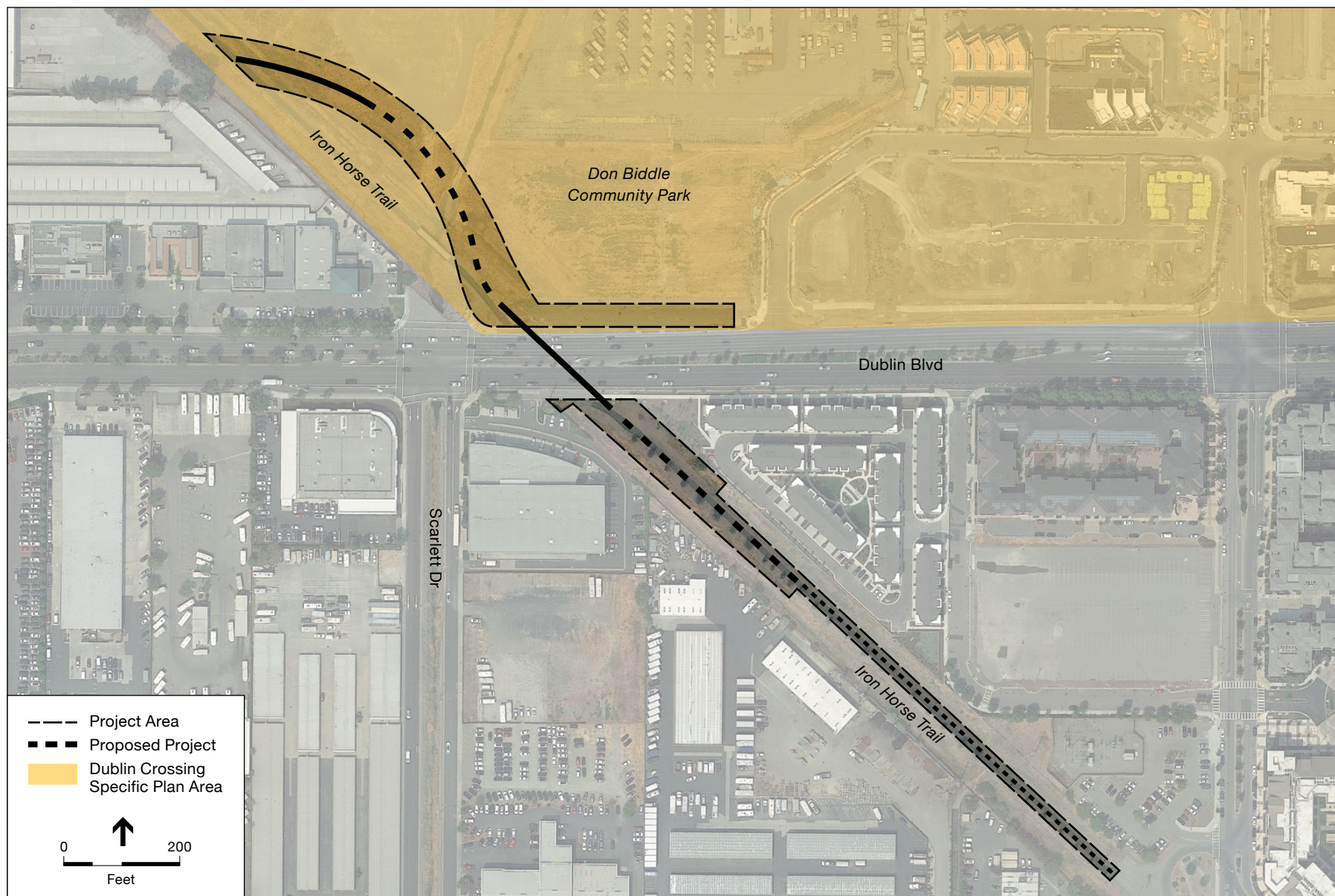


Iron Horse Trail – Dublin Boulevard Overcrossing Project

**Figure 2: Proposed Project**

SOURCE: Mark Thomas; Google Earth Pro





Iron Horse Trail – Dublin Boulevard Overcrossing Project

**Figure 3: Project Area**

SOURCE: Google Earth Pro; Dublin Crossing Specific Plan





Simulated View of Proposed Project



Plan View of Proposed Project with Simulation Viewpoint

Iron Horse Trail – Dublin Boulevard Overcrossing Project

**Figure 4:** Simulated View of Proposed Project

SOURCE: City of Dublin



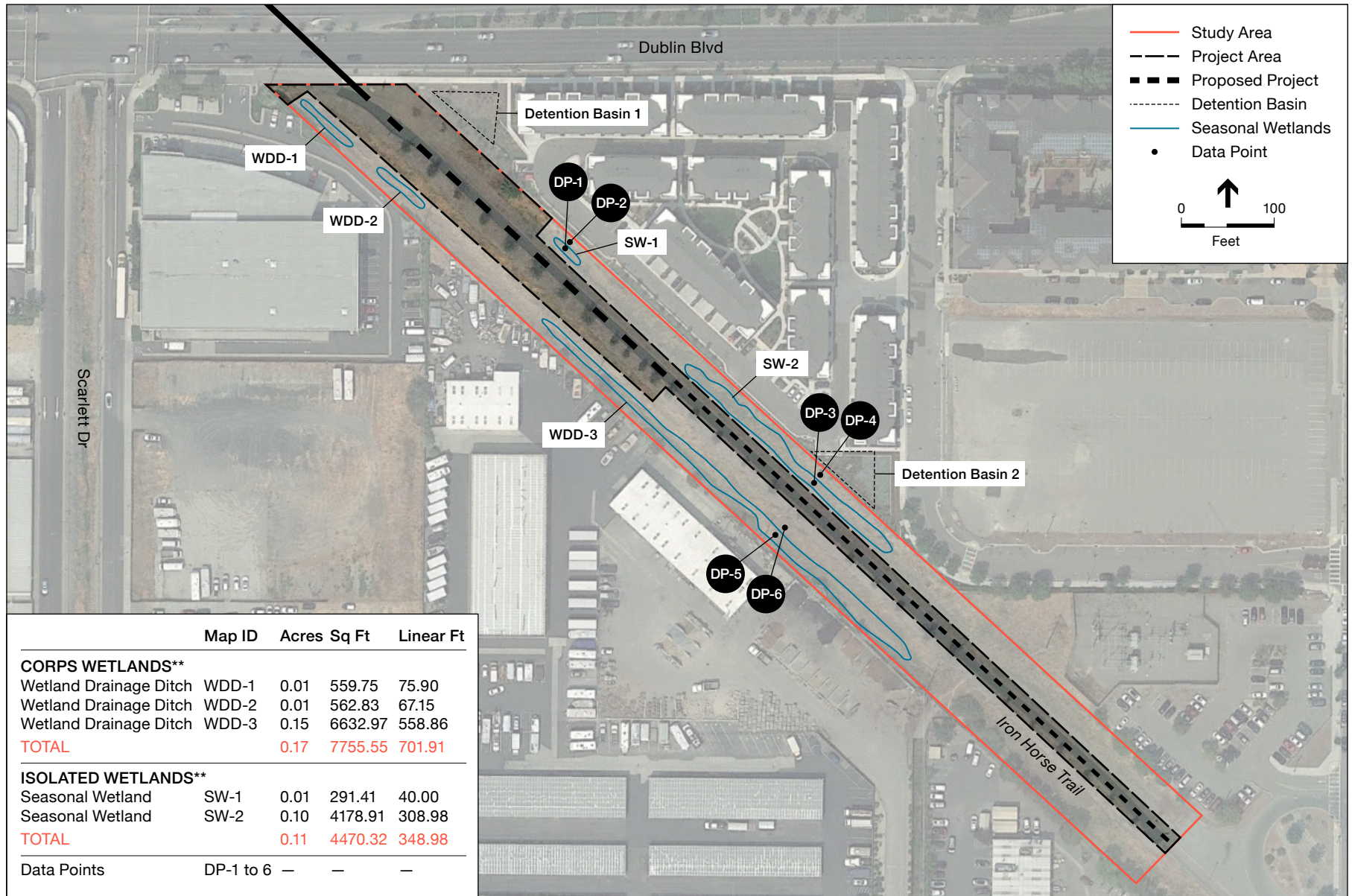


Iron Horse Trail – Dublin Boulevard Overcrossing Project

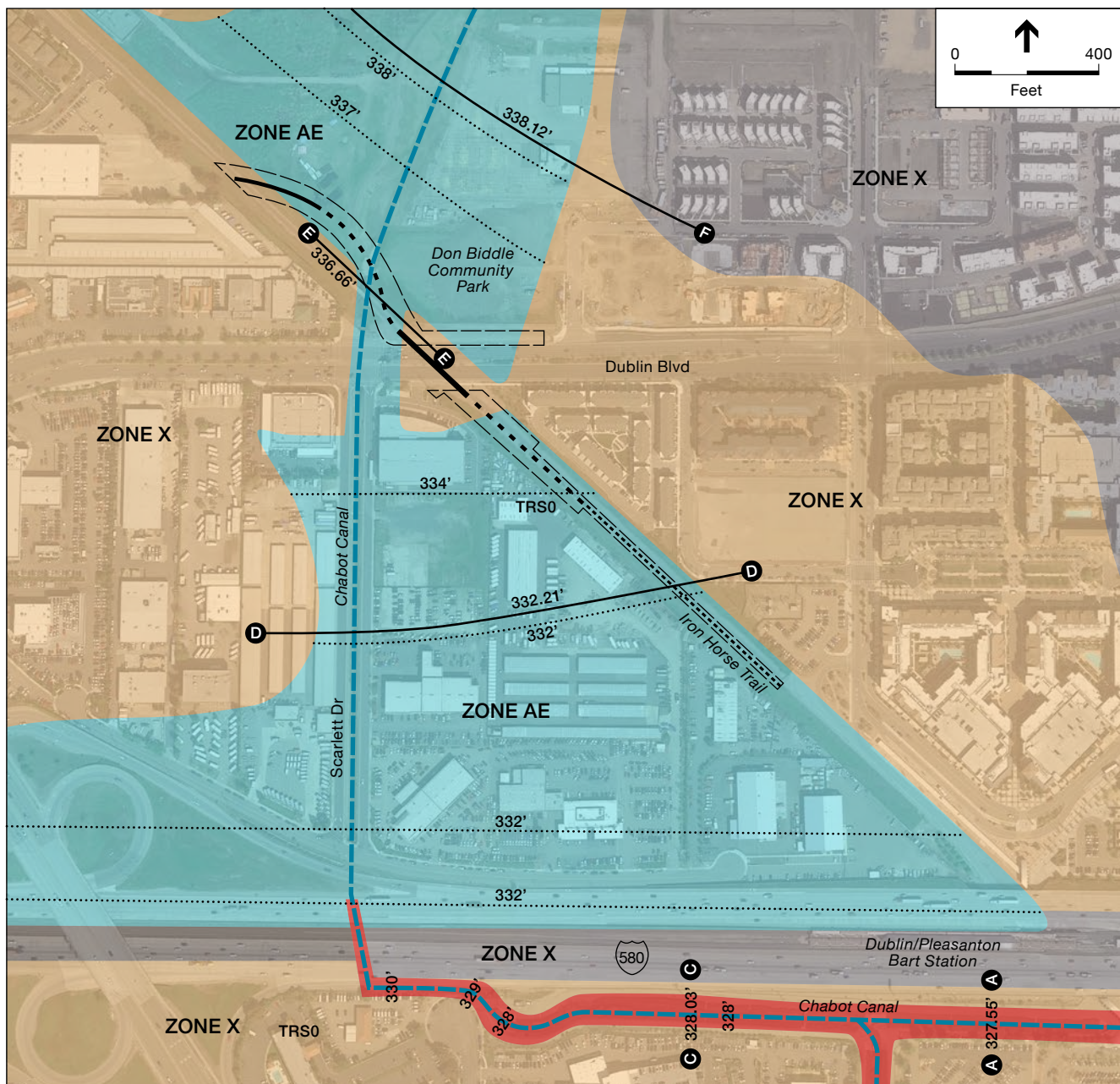
**Figure 5:** Project Area South of Dublin Boulevard

SOURCE: Google Earth Pro









- Project Area
- ..... Proposed Project
- ⓓ — Cross Sections with 1% Annual Chance
- 332' Water Surface Elevation
- ..... Base Flood Elevation Line (BFE)
- Profile Baseline

#### SPECIAL FLOOD HAZARD AREAS

- Zone AE
- Regulatory Floodway

#### OTHER AREAS OF FLOOD HAZARD

- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile - Zone X
- Area of Minimal Flood Hazard - Zone X



## Appendices

- A Special Status Species Table
- B Wetland Delineation Report
- C Cultural Resources Technical Study
- D DCEIR Mitigation Measures

3214684.1



## **APPENDIX A**

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### Special Status Species Table







## Special Status Species with Potential to Occur in the Project Area for the Iron Horse Trail Dublin Boulevard Overcrossing Project

Species Name	Common Name	Federal, State, & CNPS Listing <sup>1</sup>	Habitat Preferences & Distribution Information	Flowering Phenology/ Life Form	Habitat Suitability & Local Distribution	Potential For Occurrence
<b>Plants</b>						
<i>Centromadia parryi</i> <i>spp. congdonii</i>	Congdon's tarplant	1B.1	Valley and foothill grasslands on alkaline soils sometimes described as heavy white clay.	May-November	Found within Camp Parks and could potentially occur in seasonal wetlands late in the season when they are completely dry.	Low
<i>Chloropyron palmatum</i>	Palmate-bracted salty bird's-beak	FE, SE, 1B.1	Found in Alkali wetland and alkali sinks.	May- October Annual herb (hemiparasitic)	No suitable wetland or alkali vegetation associations present.	None
<i>Juglans hindsii</i>	Northern California black walnut	1B.1	Found in riparian forests and woodlands.	April- May Perennial deciduous tree	Suitable riparian habitat is present adjacent to the proposed project alignment.	Not present

### STATUS CODES:

#### FEDERAL

FE = Listed as Endangered by the USFWS

FT = Listed as Threatened by the USFWS

FC = Candidate for Federal listing

#### CALIFORNIA NATIVE PLANT SOCIETY (CNPS STATUS)

1A – Plants presumed extinct in California

1B – Plants rare, threatened, or endangered in California and elsewhere

#### STATE

CE = Listed as Endangered by the State of California

CT = Listed as Threatened by the State of California

2 – Plants rare, threatened, or endangered in California, but more common elsewhere

3 – Plants about which we need more information – a review list

4 – Plants of limited distribution – a watch list



## Special Status Species with Potential to Occur in the Project Area for the Iron Horse Trail Dublin Boulevard Overcrossing Project

Scientific Name	Common Name	Listing Status <sup>1</sup>	Habitat Requirements	Habitat Suitability & Local Distribution	Potential for Occurrence
<b>Invertebrates</b>					
<i>Branchinecta lynchi</i>	Vernal Pool Fairy Shrimp	FT, CH	Inhabit clear to tea-colored freshwater vernal pools in grass or mud bottomed swales, or basalt flow depression pools in unplowed grasslands. Often occur in low densities and rarely co-occur with other brachiopod species.	32 known populations in the Central Valley from Shasta to Tulare counties, and along the Central and South Coast Ranges from Solano to San Benito counties. No known occurrences within 5 miles of the proposed project area.	None
<i>Branchinecta longiantenna</i>	Longhorn fairy shrimp	FE	Endemic to the eastern margin of the coastal mountains in seasonally astatic grassland vernal pools.	Drainage ditches adjacent to the repurposed train tracks (Iron Horse Trail levee) is not suitable to support this species.	None
<i>Hygrotus curvipes</i>	Curved-foot hygrotus diving beetle		Lives in mineralized pools, stock ponds, ponds, or in intermittent streams. Distribution is Outer Coast Ranges and San Joaquin delta and in eastern Contra Costa and Alameda Counties.	This species was surveyed for within the Dublin Crossing EIR study area and not detected during 2002-2003 and 2012-2013 surveys.	Low
<i>Ischnura gemina</i>	San Francisco fortail damselfly		Occurs in quiet, dense marsh habitat and slow moving streams and canals in the San Francisco Bay Region.	This species was surveyed for within the Dublin Crossing EIR study area and not detected during 2002-2003 and 2012-2013 surveys and conditions are similar in the Project Area.	Low
<i>Linderiella occidentalis</i>	California linderiella	-	An aquatic crustacean that inhabits clear large vernal pools and lakes. Most common fairy shrimp in the Central Valley.	Occurrences have been reported north of I-580. Species was not observed during Dublin Crossing EIR surveys in 2002-2003, 2012-2013 and conditions are similar within the Iron Horse Trail Project Area.	Low
<b>Amphibians</b>					
<i>Ambystoma californiense</i>	California tiger salamander	FT, CH, ST, CSC	Range includes the Central Valley and Central Coast ranges from Colusa County south to San Luis Obispo and Kern counties from sea level to 1,054 meters (3,460 feet) in elevation. Need underground refuges, especially ground squirrel burrows and vernal pools or other seasonal water sources for breeding.	No suitable aquatic or upland habitat. Nearest CNDDDB (CDFW 2016) record is approximately 2 miles from the proposed project alignment.	None



### Special Status Species with Potential to Occur in the Project Area for the Iron Horse Trail Dublin Boulevard Overcrossing Project

Scientific Name	Common Name	Listing Status <sup>1</sup>	Habitat Requirements	Habitat Suitability & Local Distribution	Potential for Occurrence
<i>Rana boylei</i>	foothill yellow-legged frog	CSC	Streams and rivers with rocky substrate and open, sunny banks, in forests, chaparral, and woodlands; Sometimes found in isolated pools, vegetated backwaters, and deep, shaded, spring fed pools; Generally associated with foothill and mountain streams but occurs from sea level to 6,700 feet. (2,040 meters).	No suitable habitat present. Species not known from eastern Alameda County.	None
<i>Rana draytonii</i>	California red-legged frog	FT, CH, CSC	Lowlands or foothills in or near sources of water with shrubby or emergent riparian vegetation. Requires 11-20 weeks of permanent water for larval development; Must have access to estivation habitat; Restricted to freshwater and slightly brackish waters.	Critical habitat for this species is located approximately 2 miles from the project alignment. Alamo Canal is an artificial channel devoid of emergent vegetation. This feature lacks adjacent upland vegetated habitat to support estivating red-legged frogs. Nearest CNDDB (CDFW 2016) record is 2 miles from the proposed project alignment.	None
<b>Reptiles</b>					
<i>Emys marmorata</i>	western pond turtle	CSC	Aquatic; Found in ponds, marshes, rivers, streams, brackish estuarine water and irrigation ditches, usually with aquatic vegetation; Requires basking sites and suitable upland habitat (sandy banks or grassy open fields) up to 0.5 km from water for egg-laying.	There is no permanent water within the study area to support this species.	None
<i>Masticophis lateralis euryxanthus</i>	Alameda Whipsnake (striped Racer)	FT, CH	This is a subspecies of the California whipsnake, ( <i>Masticophis lateralis</i> ). Inhabits valleys, foothills and low mountains associated with northern coastal scrub or chaparral habitat; requires rock outcrops for cover and foraging.	No suitable coastal scrub or chaparral habitat present in project area.	None



### Special Status Species with Potential to Occur in the Project Area for the Iron Horse Trail Dublin Boulevard Overcrossing Project

Scientific Name	Common Name	Listing Status <sup>1</sup>	Habitat Requirements	Habitat Suitability & Local Distribution	Potential for Occurrence
<b>Birds</b>					
<i>Accipiter striatus</i>	Sharp-shinned hawk	WL	Inhabits north-facing slopes in conifers, including ponderosa pine, black oak, & Jeffrey pines, preferably in riparian areas. Forages primarily for small birds along woodland edges & openings, hedgerows, brushy pastures, & shorelines. Breeding begins in April; single-brooded.	No suitable nesting habitat is present within proposed project area; however, this species could occur in winter, possible foraging at bird feeders.	None
<i>Accipiter cooperii</i>	Cooper's hawk	WL	Typically found in forests and woodlands. Nest in pines, oaks, Douglas-firs, beeches, spruces and other densely populated woodland tree species.	Breeds across southern Canada and southward to the southern extent of the United States and Central Mexico. Winters throughout the US and Mexico. Similar to sharp-shinned, this species could occur during the non-nesting season as a winter visitor.	None
<i>Agelaius tricolor</i>	Tricolored blackbird	SCT, CSC	Open water, protected nesting substrate (blackberry/cattails), and foraging areas with insect prey. Breeding colonies require a nearby source of water, suitable nesting substrate and natural grassland, woodland, or agricultural cropland biomes in which to forage. Historically, breeding colonies had been strongly associated with emergent marshes, but more recently there has been a shift to non-natively vegetated and active agricultural areas (USFWS 2015).	No suitable nesting habitat is present near the proposed project alignment.	None
<i>Aquila chrysaetos</i>	Golden eagle	FP	Favor partially or completely open space near mountains, hills and cliffs. Utilize habitats ranging from arctic to desert, including tundra, shrublands, grasslands, coniferous forests, farmland and riparian corridors.	No suitable nesting habitat is present within the project site. Agricultural fields provide suitable foraging habitat for this species.	None
<i>Ardea herodias</i>	Great blue heron		A large wading bird that inhabits a variety of aquatic habitats including shores, tide flats, marshes, swamps, ponds, lakes, rivers, and streams. Nests colonially in large trees near water bodies.	No suitable habitat to support nesting colonies is present.	None



### Special Status Species with Potential to Occur in the Project Area for the Iron Horse Trail Dublin Boulevard Overcrossing Project

Scientific Name	Common Name	Listing Status <sup>1</sup>	Habitat Requirements	Habitat Suitability & Local Distribution	Potential for Occurrence
<i>Athene cunicularia</i>	Burrowing owl	CSC	Valley bottoms and foothills with low vegetation and fossorial mammal activity such as ground squirrel burrows the species can use for refuge or breeding purposes. Breeding begins in March; single-brooded.	Grassland habitat exists in the Project Area which could potentially be used by burrowing owls. Total foraging area is limited in size and localized foot traffic and trail use likely inhibits colonization. No ground squirrel burrows observed.	Low
<i>Buteo regalis</i>	Ferruginous hawk	WL	Breeds in the northern states and Canada; winters south from California and Texas to Mexico. Wintering habitat consists of open grasslands, deserts, and cultivated fields. Breeding begins in April; single-brooded.	No suitable foraging or wintering habitat present within the project study area.	None
<i>Circus cyaneus</i>	Northern harrier	CSC	Inhabits both freshwater and saltwater marshes and adjacent upland grasslands. Nests on the ground in tall grasses in grasslands and meadows. Breeding begins in March; single-brooded.	No suitable nesting habitat within the proposed project alignment.	None
<i>Elanus leucurus</i>	White-tailed kite	FP	Rolling foothills and valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodland. Open grasslands, meadows, or marshes for foraging close to isolated, dense-topped trees for nesting and perching.	No suitable nesting habitat present within the project site.	None
<i>Eremophila alpestris actia</i>	California horned lark	WL	Common, abundant resident in a variety of open habitats, usually where large trees and shrubs are absent, ranging from low-elevation grasslands and deserts to dwarf shrub habitats above tree line.	No nesting habitat present in the Project Area.	None
<i>Falco mexicanus</i>	Prairie falcon	WL	Nests on cliffs and at times in old raven or eagle stick nests on cliff, bluff, or rock outcrop. Inhabits perennial grasslands, savannahs, rangeland, some agricultural fields, & desert scrub communities. Breeding begins in April; single-brooded.	No suitable nesting habitat present within the project study area.	None



## Special Status Species with Potential to Occur in the Project Area for the Iron Horse Trail Dublin Boulevard Overcrossing Project

Scientific Name	Common Name	Listing Status <sup>1</sup>	Habitat Requirements	Habitat Suitability & Local Distribution	Potential for Occurrence
<i>Falco peregrinus anatum</i>	American peregrine falcon	DL, DL, FP	Habitat includes many terrestrial landscapes in North America; mainly cliffs and nesting near water. Utilize open habitat for foraging. Will also utilize artificial habitats like towers, bridges and buildings.	Most widely found in Northern California; migrates long distances along the western coast of the US. No suitable nesting habitat present within the project site.	None
<i>Lanius ludovicianus</i>	Loggerhead shrike	MBTA, SSC	Breeds in grassland or shrublands with open ground. Requires mature shrubs or small trees for nesting. Fence lines are used for perching and maintaining territory. Open areas used for hunting.	Potential foraging habitat in grassland habitat in Project Area. Nesting habitat not present.	None
<b>Mammals</b>					
<i>Antrozous pallidus</i>	Pallid bat	CSC	Deserts, grasslands, shrublands, woodlands and forests. Most common in open, dry habitats with rocky areas for roosting. Roosts must protect from high temperatures. Sensitive to disturbance of roosting sites.	CNDDDB reports observations of this bat aprx. 2 miles to the southwest. No roosting habitat within Project area.	None
<i>Myotis yumanensis</i>	Yuma myotis	-/-	Forests and woodlands with sources of water over which to feed. Roosts in buildings, mines, caves, crevices, occasionally under bridges.	CNDDDB reports observations of this bat aprx. 2 miles to the southwest. No roosting habitat and no open water foraging habitat within Project area.	None
<i>Vulpes macrotis mutica</i>	San Joaquin Kit Fox	FE, ST	Inhabits annual grasslands or grassy open stages with scattered shrubby vegetation; needs loose-textured sandy soils for burrowing, as well as suitable prey base.	Grassland habitat not suitable within the project area due to total isolation from known occupied habitat.	None

### STATE AND FEDERAL LISTING CODES:

#### FEDERAL

FE = Federally listed as Endangered  
 FT = Federally listed as Threatened  
 FPE = Candidate for Federal listing  
 DL = Delisted

FPD = Federally proposed for delisting

FC = Federal candidate species (former Category 1 candidates)

SC = Species of Concern (NMFS regulated species only)

CH = Critical Habitat (Proposed or Final) is designated

#### STATE

SE = State listed as Endangered  
 ST = State listed as Threatened  
 SR = State listed as Rare  
 SCE = State candidate for listing as Endangered

SCT = State candidate for listing as Threatened

CSC = California Species of Special Concern

FP = Fully Protected

WL = Watch List



## **APPENDIX B**

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### Wetland Delineation Report







# IRON HORSE TRAIL DUBLIN BOULEVARD OVERCROSSING PROJECT

## **Preliminary Delineation of Waters of the United States Alameda County, California**

**Prepared for:**  
**City of Dublin**

**Prepared by:**  
**Metis Environmental Group**







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# ACRONYMS AND ABBREVIATIONS USED IN THIS DOCUMENT

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CFR	Code of Federal Regulations
Corps	United States Army Corps of Engineers
CWA	Clean Water Act
EPA	United States Environmental Protection Agency
FAC	Facultative plant species
FACU	Facultative upland plant species
FACW	Facultative wetland plant species
GIS	Geographic Information System
GPS	Global Positioning System
OBL	Obligate wetland plant species
OHWM	Ordinary highwater mark
NI	No wetland indicator assigned (for plants)
NRCS	Natural Resource Conservation Service
NRPW	Non-relatively permanent waters
NWI	National Wetlands Inventory
RCP	Reinforced Concrete Pipe
RPW	Relatively permanent waters
SWANCC	Solid Waste Agency of Northern Cook County
TNW	Traditionally navigable waters
UPL	Upland plant species
USDA	United States Department of Agriculture
USGS	United States Geological Survey
USFWS	United States Fish and Wildlife Service







# CHAPTER 1

## Introduction

### 1.1 Objective

This report documents the extent of potentially jurisdictional waters of the United States, including wetlands and other waters, which occur within the study area for the Iron Horse Trail Dublin Boulevard Overcrossing Project, located within the City of Dublin in Alameda County, California **Figure 1**).

The purpose of this document is to identify features within the study area that meet criteria and conditions suitable to be considered the jurisdiction of the U.S. Army Corps of Engineers (Corps) pursuant to the Clean Water Act, Section 404 and 401, and to provide the background information necessary to support future permit applications (if necessary) under Section 404 and Section 401 of the Clean Water Act for the proposed project.

### 1.2 Summary of Results

Metis Environmental conducted a formal wetland delineation of the study area on March 6, 2018. The field delineation identified and documented all potentially jurisdictional wetlands and other waters of the U.S. within the delineation study area (Figure 2).

A total of 0.16 acres of Waters of the US and 0.26 acres of Waters of the State were identified in the delineation study area. As indicated in Table 4-1 and included in the summary table below, delineated features in the delineation study area are estimated for each feature type shown in Figure 2.

**WATERS OF THE US AND STATE WITHIN THE  
DELINEATION STUDY AREA**

Feature Type	Data Points (DP)	Potential State Jurisdiction	Potential Federal Jurisdiction
<b>Seasonal Wetlands</b>			
SW-1	1,2	0.01	
SW-2	3,4	0.09	
<b>Wetland Drainage Ditch</b>			
WDD-1		0.01	0.01

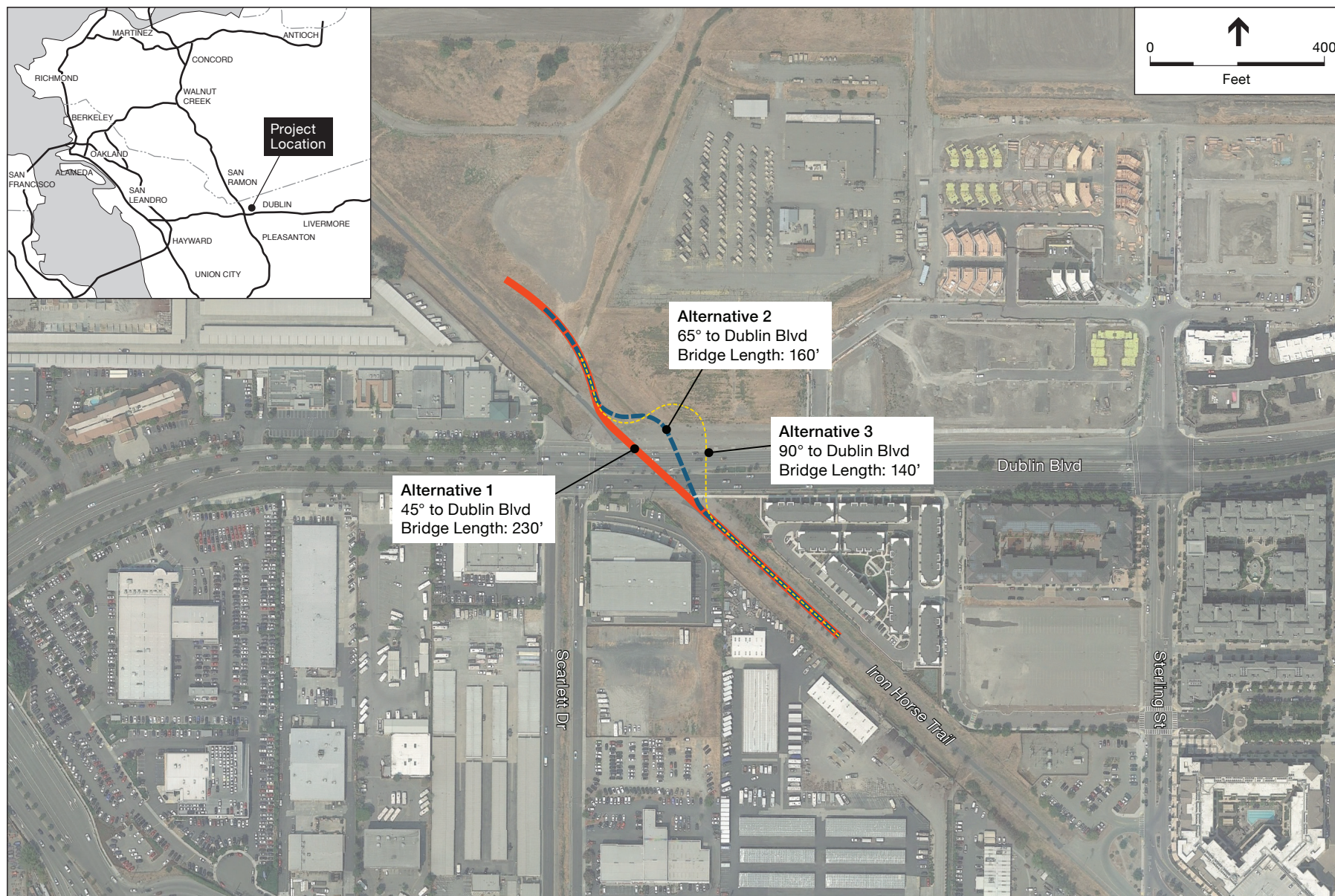


Feature Type	Data Points (DP)	Potential State Jurisdiction	Potential Federal Jurisdiction
WDD-2		0.01	0.01
WDD-3	5,6	0.14	0.14
<b>Total</b>		0.26	0.16

SOURCE: Metis Environmental, 2018.

A detailed summary of all waters of the U.S. and State documented within the delineation study area is presented in Table 4-1 (see Chapter 4). Delineation maps are presented in **Appendix A**; wetland datasheets are provided in **Appendix B**; approved jurisdictional delineation form (Rapanos Form) in **Appendix C**; a 7.5-minute USGS topographic map is located in **Appendix D**; soil maps are provided in **Appendix E**; the climate summary (WETS Table) information table is provided in **Appendix F**; and representative photographs are provided in **Appendix G**.





Iron Horse Trail – Dublin Boulevard Overcrossing Project

Preliminary Delineation of Waters of the U.S.

**Figure 1: Project Location**

SOURCE: Mark Thomas; Google Earth Pro



## 1.3 Responsible Parties

The Iron Horse Trail Dublin Boulevard Overcrossing project is proposed by the City of Dublin. The contact person for the project is:

Obaid Khan, Transportation and Operations Manager  
100 Civic Plaza  
City of Dublin, CA 94568  
Obaid.Khan@dublin.ca.gov

Contact:  
Obaid.Khan@dublin.ca.gov  
925-833-6630

## 1.4 Project Description

### 1.4.1 Overview

The City of Dublin proposes to construct a grade-separated overcrossing at Dublin Boulevard, just north of the Dublin/Pleasanton BART Station along the multi-use Iron Horse Trail (Figure 1). The overcrossing will span north to south over Dublin Boulevard and will provide an alternative to the existing at-grade trail user-vehicular interface that currently occurs along the Iron Horse Trail where it meets Dublin Boulevard.

North of Dublin Boulevard the overcrossing structure would be integrated into the Dublin Crossing Central Park, within the Dublin Crossing Specific Plan area, along an alignment that would gradually transition to at-grade conditions before re-connecting with the Iron Horse Trail north of Dublin Boulevard. Figure 1 shows the three proposed alternatives being considered for the North side touch down configuration. South of Dublin Boulevard the overcrossing would touch down within the Iron Horse Trail right-of-way and would include a graduated ramp for pedestrians and bicyclists to access the overcrossing. The southern touchdown area is the subject of this report.







# CHAPTER 2

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## Setting

### 2.1 Delineation Study Area

The delineation study area consists of the existing Iron Horse Trail right-of-way where it occurs south of Dublin Boulevard near the intersection of Dublin Boulevard and Scarlett Drive in Dublin, Alameda County, California (**Figure 2**). The delineation study area extends approximately 880 linear feet to the south of Dublin Boulevard and spans approximately 100 feet east to west across the Iron Horse Trail ROW accounting for approximately 2 acres of total area. Non-native annual grassland, ruderal vegetation, seasonal wetland, and landscape trees occur within the study area. North of Dublin Boulevard the overcrossing would touch down within the Dublin Crossing Specific Plan area for which a Jurisdictional Determination has already been approved by the Corps.

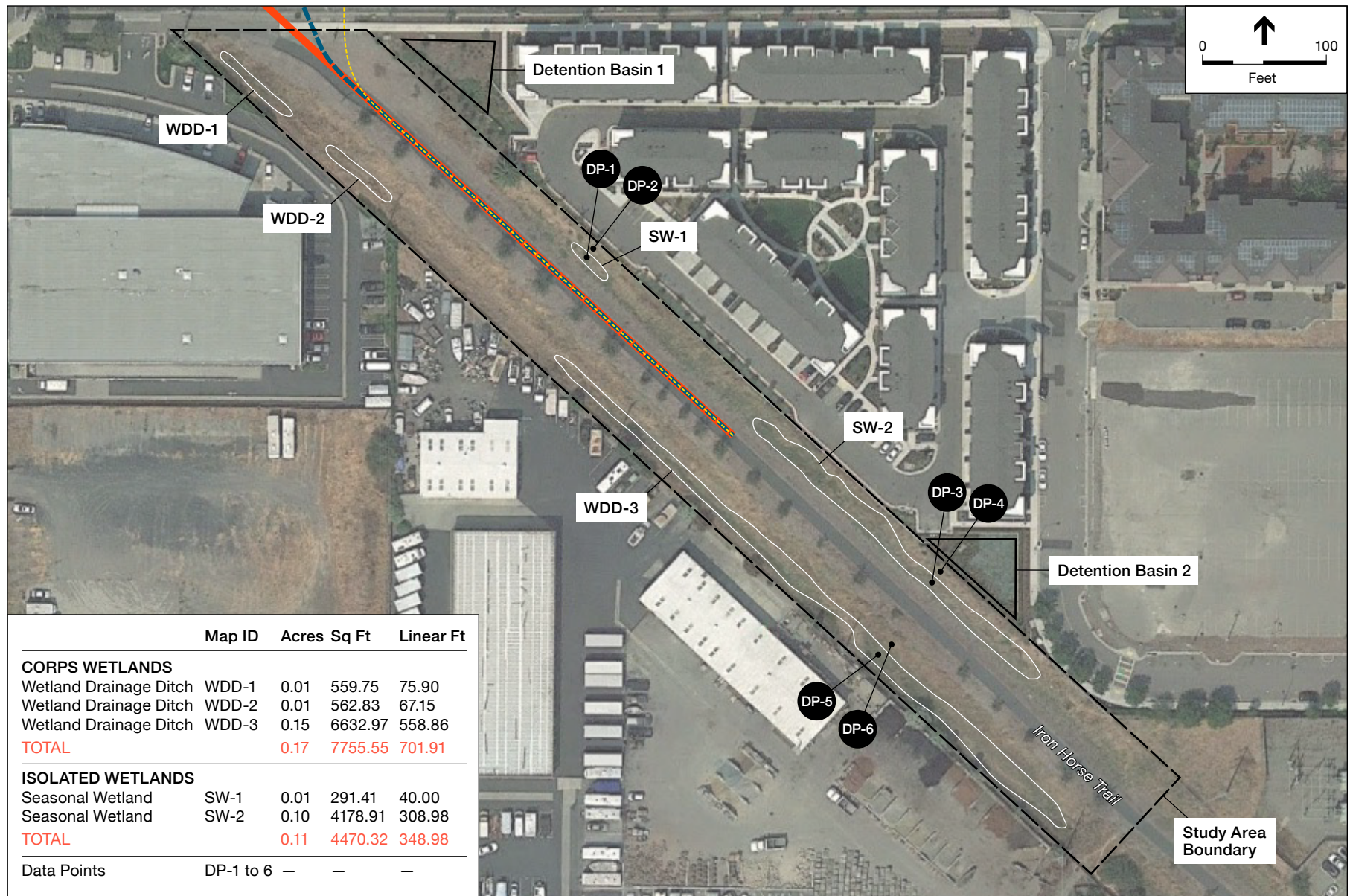
Land use in the surrounding area consists of urban subdivision to the east and light commercial development to the west. Additional urban development including the extension of Scarlett Drive and construction of the Dublin Crossing Central Park facility adjacent to the Iron Horse trail on the north side of Dublin Boulevard, (across Dublin Boulevard from the delineation study area), are currently underway and are expected to be in place prior to construction of the proposed overcrossing project.

The study area is defined by a concrete retaining wall along the eastern boundary, adjacent to high density housing and associated parking. The western boundary occurs adjacent to commercial and light industrial development and consists of chain link privacy fencing. The study area is accessible from the paved surface of the Iron Horse Trail where it intersects Dublin Boulevard and extends south adjacent to the Dublin/Pleasanton BART Station.

### 2.2 Climate and Topography

The overall Northern California climate is Mediterranean in nature, which is characterized by warm, dry summers and cool, wet winters, with the bulk of precipitation occurring as rain in the winter months. The average annual temperature in Dublin is 60.3° F, while mean annual rainfall is 14.23 inches (USDA, NRCS, 2018).





Iron Horse Trail – Dublin Boulevard Overcrossing Project

Preliminary Delineation of Waters of the U.S.

**Figure 2: Potential Jurisdictional Wetland Areas**

SOURCE: Google Earth Pro



The study area follows the path of the Iron Horse Trail which occurs on a repurposed rail road levee, located at approximately 400 feet above sea level.

## 2.3 Soils

The United States Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS) Web Soil Survey (USDA NRCS, 2018) was consulted to determine the soil type occurring within the delineation study area and it is:

- Clear Lake clay, drained, 0 to 2 percent slopes.

A map depicting the soil within the wetland delineation study area is presented in Appendix E. Clear Lake clay is included on the National Hydric Soil list. A brief description of the soil series within the delineation study area follows.

The Clear Lake series consists of very deep, poorly drained soils that are formed in fine textured alluvium derived from mixed rock sources. Clear Lake soils are in flood basins, flood plains and in swales of drainageways (USDA NRCS, 2018).

This series exhibits negligible to high runoff (if assumed concave runoff is always negligible); slow to very slow permeability. A water table is at depths of 4 to 10 feet in the late summer and in some areas is very near the surface during wet months of winter. Clear Lake clay soils are classified as Xeric Endoaquerts.

## 2.4 Hydrology

Annual rainfall is the only source of water within the study area. Precipitation soaks into the soils and drains off the paved or earthen sloped surface of the Iron Horse Trail where it contributes to water ponding above the soil surface at the toe of the former railroad levee, i.e. within seasonal wetlands. With average rainfall at 14.23 inches for the Dublin area, the rainfall for the winter 2017-2018 is approximately 60-70% of normal to date. Rainfall during the previous winter of 2016-2017 was 45 percent higher than the average. Years preceding 2017 consisted of a five-year drought with substantially lower rainfall totals. For the current water year the total accumulated rainfall is below average for the region.

## 2.5 Vegetation

Plant communities are assemblages of plant species that occur together in the same area which are defined by species composition and relative abundance. The study area contains non-native annual grassland, ruderal vegetation, seasonal wetland, and a row of native valley oak trees planted by the Urban Forestry Program under Proposition 40 and 84. The upland community is described below, while the wetland community is described in Section 4.2.



Non-native grassland and ruderal vegetation occur over the majority of the study area and it is dominated by common invasive weed species such as rip-gut brome (*Bromus diandrus*), wild oat (*Avena fatua*), Italian rye grass (*Festuca perennis*), winter vetch (*Vicia sativa*), and prickly ox-tongue (*Helminthotheca echioides*). Landscape bark is spread adjacent to the edge of the paved Iron Horse Trail and some areas appear to have been sprayed with herbicide such that vegetation is lacking.

A row of 10 to 15-foot tall valley oak (*Quercus lobata*) trees are planted on the southwest side of the Iron Horse Trail, extending south from Dublin Boulevard. A single ornamental palm tree occurs on the northeastern side of the Iron Horse Trail levee near the concrete retaining walls associated with the residential development to the east.

Directly adjacent to the Iron Horse Trail, constructed water detention basins capture residential runoff from the eastern high density residential development as shown in Figure 2. The detention basins are vegetated with landscape species and are managed for water capture and settling. By definition, the basins are not within the jurisdiction of the state or federal regulatory agencies.







# CHAPTER 3

## Methods

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### 3.1 Definitions

Many of the terms used throughout this report have specific meanings with respect to the delineation of Waters of the U.S. These terms are defined below:

**Waters of the United States:** The Code of Federal Regulations (33 CFR § 328.3[a]; 40 CFR § 230.3[s]) defines ‘waters of the United States’ as:

(1) All waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide; (2) All interstate waters including interstate wetlands; (3) All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mud flats, sand flats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation, or destruction of which could affect interstate or foreign commerce including any such waters which are or could be used by interstate or foreign travelers for recreational or other purposes; or from which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or which are used or could be used for industrial purposes by industries in interstate commerce; (4) All impoundments of waters otherwise defined as waters of the United States under the definition; (5) Tributaries of waters identified in paragraphs (1) through (4); (6) Territorial seas; and (7) Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (1) through (6).

**Wetlands:** The Corps and the U.S. Environmental Protection Agency (EPA) define wetlands as, “Those areas that are saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support a prevalence of vegetation typically adapted for the life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.” Corps wetlands must typically exhibit three parameters: 1) wetland hydrology, 2) hydrophytic vegetation, and 3) hydric soils in order to meet the federal definition.

**Wetland Hydrology:** This term encompasses all hydrologic characteristics of areas that are periodically inundated or have soils saturated to the surface at some time during the growing season. These include both riverine and non-riverine hydrology indicators, such as sediment deposits, drift lines, and oxidized rhizospheres along living roots in the upper 12 inches of the soil. In the Arid West, hydrologic indicators may be absent in any given year due to annual variability in precipitation and in times of drought. The *Arid West Supplement* (Corps, 2008) cites a technical standard that can be used for disturbed or problematic sites that support wetland vegetation and soils but where wetland hydrology is not apparent. ‘This standard calls for 14 or more consecutive days of flooding, ponding, or



a water table 12 inches or less below the soil surface during the growing season at a minimum frequency of 5 years in 10’.

**Hydrophytic Vegetation:** Hydrophytic vegetation is defined as plant life that occurs in areas where the frequency and duration of inundation or soil saturation produce permanently or periodically saturated soils of sufficient duration to exert a controlling influence on the plant species present. Emphasis is placed on the assemblage of plant species that exert a controlling influence on the character of the plant community, rather than on a single indicator species, i.e., there must be a prevalence of hydrophytic vegetation present in order to satisfy this wetland parameter.

**Wetland Indicator Status:** Refers to the probability that a plant will occur in a wetland or not. Indicator status categories are as follows:

- *Obligate (OBL)*: almost always occurs in wetlands
- *Facultative wetland (FACW)*: usually occurs in wetlands, sometimes may occur in uplands
- *Facultative (FAC)*: equally likely to occur in wetlands or non-wetlands
- *Facultative upland (FACU)*: usually occurs in uplands but may occasionally occur in wetlands
- *Obligate upland (UPL)*: almost never occurs in wetlands
- *No indicator (NI)*: no indicator assigned due to lack of information

**Hydric Soil:** A soil that is saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions in the upper part. Hydric soils are often characterized by redoximorphic features (such as redox concentrations, formerly known as mottles), which form by the reduction, translocation, and/or oxidation of iron and manganese oxides. Hydric soils may lack hydric indicators for a number of reasons. In such cases the same standard used to determine wetland hydrology when indicators are lacking can be used.

**Ordinary High Water Mark:** Ordinary high water mark (OHWM) is defined in 33 CFR § 328.3[e] as ‘...that line on the shore established by the fluctuations of water and indicated by physical characteristics, such as a clear, natural line impressed on the bank, shelving, changes in the character of the soil, destruction of terrestrial vegetation, the presence of litter or debris, or other appropriate means that consider the characteristics of the surrounding area’.

**Other Waters:** The term “other waters of the United States” includes water bodies, such as rivers and streams, that may not meet the full criteria for wetlands designation but that do exhibit evidence of an OHWM and are navigable or hydrologically connected to a navigable water body. Under the latest regulatory guidance, some types of other waters must have a significant nexus to a navigable water body to be considered jurisdictional by the Corps.

**Traditionally Navigable Waters:** Traditionally navigable waters (TNW) are all waters that are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide.



**Relatively Permanent Waters:** Relatively permanent waters (RPW) are non-navigable tributaries of traditional navigable waters that are relatively permanent, meaning they typically flow year-round or have continuous flow at least seasonally (e.g., typically three months).

**Non-Relatively Permanent Waters:** Non-relatively permanent waters (NRPW) include non-navigable tributaries with ephemeral or seasonal flows lasting less than three months.

**Significant Nexus:** This term refers to the hydrologic and ecologic connection between a TNW and its tributaries. Under recent guidance from the Corps and EPA certain wetlands and waters must have a significant nexus with a TNW in order to be considered jurisdictional.

**Growing Season:** The growing season is that part of the year when soil temperatures at 19.7 inches below the soil surface are higher than biologic zero (5°C/41° F). Growing season dates should be determined through onsite observations whenever possible. Since onsite data gathering is often not possible growing season dates can be approximated by using WETS tables from the nearest appropriate WETS station. The WETS table 70% probability average beginning and ending dates for 28° F temperatures can be used to represent the "normal" growing season for wetland determinations (NRCS, 1995). According to the Livermore WETS Station data (see Appendix E) the normal growing season for the study area would be 365 days (USDA, NRCS, 2002).

## 3.2 Regulatory Setting

Wetlands and other waters (e.g., rivers, streams, and natural ponds) are a subset of waters of the U.S. and receive protection under Section 404 of the Clean Water Act (CWA). The Corps has primary federal responsibility for administering regulations that concern waters of the U.S. and requires a permit if a project proposes placement of structures within navigable waters and/or alteration of waters of the U.S. The EPA has the ultimate authority under the CWA and can veto the Corps' issuance of a permit to fill jurisdictional waters of the U.S.

In recent years several Supreme Court cases have challenged the scope and extent of the Corps' jurisdiction over waters of the United States and have led to several reinterpretations of that authority. The most recent of these decisions are the case of *Solid Waste Agency of Northern Cook County (SWANCC) v. the Army Corps of Engineers* (January 9, 2001) and *Rapanos v. United States* (June, 2006). The SWANCC decision found that jurisdiction over non-navigable, isolated, intrastate waters could not be based solely on the use of such waters by migratory birds. The reasoning behind the SWANCC decision could be extended to suggest that waters need a demonstrable connection with a 'navigable water' to be protected under the CWA. The introduction of the term isolated has led to the consideration of the relative connectivity between waters and wetlands as a jurisdictionally relevant factor. The more recent *Rapanos* case further questioned the definition of "waters of the United States" and the scope of federal regulatory jurisdiction over such waters but resulted in a split decision which did not provide definitive answers but expanded on the concept that a 'significant nexus' with traditional navigable waters was needed for certain waters to be considered within the jurisdiction of the Corps.



On June 5, 2007 the EPA and the Corps released guidance on CWA jurisdiction in response to the Rapanos Supreme Court decisions, which can be used to support a finding of CWA coverage for a particular water body when either a) there is a significant nexus between the stream or wetland in question and navigable waters in the traditional sense; or b) a relatively permanent water body is hydrologically connected to traditional navigable waters and/or a wetland has a surface connection with that water. According to this guidance the Corps and the EPA will take jurisdiction over the following waters: 1) Traditional navigable waters; 2) Wetlands adjacent to traditional navigable waters, including adjacent wetlands that do not have a continuous surface connection to traditional navigable waters; 3) Non-navigable tributaries of traditional navigable waters that are relatively permanent where the tributaries typically flow year-round or have continuous flow at least seasonally (e.g., typically three months); 4) Wetlands adjacent to non-navigable tributaries, as defined above, that have a continuous surface connection to such tributaries (e.g. they are not separated by uplands, a berm, dike, or similar feature).

The EPA and the Corps will claim jurisdiction over the following waters, based on a fact-specific determination of significant nexus, as defined below, to a traditional navigable water: non-navigable tributaries that are not relatively permanent; wetlands adjacent to non-navigable tributaries that are not relatively permanent; and wetlands adjacent to but that do not directly abut a relatively permanent non-navigable tributary.

The EPA and the Corps generally do not assert jurisdiction over the following features: swales or erosional features (e.g., gullies, small washes characterized by low volume, infrequent, or short duration flow); ditches (including roadside ditches) excavated wholly in and draining only uplands and that do not carry a relatively permanent flow of water.

The EPA and the Corps have defined the significant nexus standard as follows:

A significant nexus analysis assesses the flow characteristics and functions of the tributary itself and the functions performed by all wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical and biological integrity of downstream traditional navigable waters.

Significant nexus analysis includes consideration of hydrologic and ecologic factors including: volume, duration, and frequency of flow; proximity to a traditional navigable water; size of the watershed; average annual rainfall; average annual winter snow pack; potential of tributaries to carry pollutants and flood waters to traditional navigable waters; provision of aquatic habitat that supports a traditional navigable water; potential of wetlands to trap and filter pollutants or store flood waters; and maintenance of water quality in traditional navigable waters.



### 3.3 Office Preparation

#### Literature Review

Metis Environmental reviewed the following information relevant to this delineation:

- *Jepson eFlora* (Jepson Flora Project, 2018) and *The Jepson Manual: Higher Plants of California* (Hickman, 1993);
- Google Earth Historic Aerials (1993-2018)
- USDA NRCS, Web Soil Survey online application 2018
- *National Wetland Plant List* (Lichvar and Kartesz, 2012)

### 3.4 Field Survey Methods

#### Dates

Metis Environmental Biologists J. King and P. Berryhill conducted a routine delineation of waters of the U.S. within the wetland delineation study area on March 6, 2018.

#### Field Delineation Methods

##### Data Collection

Wetland signatures on the project site were investigated within the delineation study area and the delineation study area was walked such that visual coverage was 100 percent. All potential wetlands identified on the ground within the study area were delineated by comparing aerial imagery to existing site conditions.

Data were collected at 6 points within the study area. In accordance with the Corp's guidance, sample points were taken at sites representative of the vegetation, hydrology, and physical characteristics across the wetland types and at adjacent upland areas. Results were extrapolated to nearby wetlands exhibiting similar vegetation and hydrologic conditions. Paired upland data points were established for three wetland data points. Arid West data sheets were used to record information at each data point after field data were gathered.

##### Determination of Hydrophytic Vegetation

At each data point vegetation was analyzed within a 9-foot radius for herbaceous species. All species noted within the study plots were recorded on the data sheets. The indicator status of each species was confirmed in the field, to the extent feasible, with Arid West 2016 Regional Wetland Plant List (Lichvar, Banks, Kirchner, and Melvin 2016). Dominance and/or prevalence calculations were performed in the field as well. When the vegetation passed either the dominance or prevalence test the point was considered to have hydrophytic vegetation.



## Determination of Hydric Soils

Soils were analyzed in accordance with the Corps' *Arid West Manual* (2008). Soil pits were excavated to the maximum depth possible and soil color was matched against a standard color chart (Munsell, 2000). Soils were inspected for redoximorphic features and soil texture was determined. It was then possible to determine if the soils met any of the hydric soils criteria listed on the Arid West data sheets. Where soils did not exhibit hydric soil criteria consideration was given as to whether the data point in question had the potential to be saturated, ponded or have a water table within 12 inches of the surface for 14 or more consecutive days during the growing season. With the presence of wetland vegetation and hydrology, this technical standard can be used to characterize a soil as hydric (Corps, 2008).

## Determination of Wetland Hydrology

Hydrology was assessed using the Corps' 2008 *Arid West Manual's* revised hydrology indicators (e.g., water inundation, water marks, inundation visible on aerial imagery, or biotic crusts). Soils in the wetland areas were inundated or saturated at the time of the delineation field work. Where hydrology indicators were weak, consideration was given as to whether the technical standard quoted above for hydrology and soils might reasonably be applied to a given site.

## Mapping and Acreage Calculations

Wetland boundaries were recorded in the field by the use of measuring tape and through investigation of aerial signature correspondence on maps. Features were mapped by hand on aerial images and field notes were taken on the specific characteristics of each feature (vegetation type and quality, disturbance levels, etc.). Final mapping included correction of original data as well as digitizing data using field maps, notes, and aerial photographs (air photos over several years). Area calculations for potential wetlands were computed using ArcGIS 10.1 (preliminary acreage calculated with google earth polygon tool).



# CHAPTER 4

## Results

### 4.1 Organization

Field delineation results for the study area are presented below. Delineation maps and datasheets for the project, and other supporting information, such as a jurisdictional determination analysis map, a soils map, and representative photographs for the delineation study area are presented in Appendices A through G.

### 4.2 Results

A total of 0.16 acres of waters of the US and 0.26 acres of waters of the State occur within the delineation study area. **Table 4-1** below presents all delineated features within the delineation study area and summarizes estimated State jurisdictional areas for each feature type.

Five seasonal wetlands (waters of the State) have been identified in the study area:

**TABLE 4-1**  
**WATERS OF THE US AND STATE WITHIN THE**  
**DELINEATION STUDY AREA**

Feature Type	Data Points (DP)	Potential State Jurisdiction	Potential Federal Jurisdiction
<b>Seasonal Wetlands</b>			
SW-1	1,2	0.01	
SW-2	3,4	0.09	
<b>Wetland Drainage Ditch</b>			
WDD-1		0.01	0.01
WDD-2		0.01	0.01
WDD-3	5,6	0.14	0.14
<b>Total</b>		0.26	0.16

SOURCE: Metis Environmental, 2018.

#### 4.2.1 Wetlands

Within the study area seasonal wetlands occur and are represented by sample points 1, 3, and 5 (see Appendix B for datasheets). The corresponding upland positions are represented by sample



points 2, 4, and 6. Seasonal Wetland-1 (SW-1), Seasonal Wetland-2 (SW-2), Wetland Drainage Ditch-1 (WDD-1) and Wetland Drainage Ditch-2 (WDD-2), and Wetland Drainage Ditch-3 (WDD-3) are mapped in Appendix A.

### **Seasonal Wetlands/Wetland Drainage Ditch**

The seasonal wetland features within the study area are vegetated with annual herbaceous species typically found within ephemeral depressions in California. With a slightly alkaline soil underlying the study area, the vegetation skews toward alkali tolerant plants species. Saltgrass (*Distichlis spicata*-FAC), a dominant perennial species within the study area and alkali heath (*Frankenia salina*-FACW), a less common subshrub, were observed at the wetland data points. Other species observed at the wetland locations included spike rush (*Eleocharis macrostachya*-OBL), umbrella sedge (*Cyperus eragrostis*-FACW), creeping wild rye (*Lemus tritichoides*-FAC), cocklebur (*Xanthium strumarium*-FAC), rabbit's foot grass (*Polypogon monosperinus*-FACW), and prickly ox-tongue (*Helminthotheca echioides*-FAC).

The plant species observed in the wetland areas were dominated by hydrophytes and were sufficient in dominance and prevalence to determine vegetative conditions are consistent with wetland criteria. Wetland vegetation criteria were met at sample points 1, 3, and 5. Vegetation at sample points 2, 4 and 6 was not indicative of wetland conditions as it was dominated by upland species associated with non-native annual grasslands habitat.

#### **4.2.2 Soils**

Soil at wetland sample point 1, located at the topographic low point within SW-1, exhibited a matrix of very dark gray (2.5 Y 3/1) clay loam from zero to nine inches. Between ten and 15 inches the soil darkens to a black (2.5 Y 2.5/1) clay with depletions colored a light olive brown (2.5 Y 5/6) representing 5 percent of the soil. This soil sample met hydric soil indicator F6: Redox Dark Surface.

Soil sampled at sample point 3 and 5 had a matrix of very dark gray (2.5 Y 3/1) clay loam from zero to five inches. Between six and 14 inches in the soil profile was represented by a black (2.5 Y 2.5/1) clay with depletions colored a light olive brown (2.5 Y 5/6) representing 10 percent of the soil. This soil sample met hydric soil indicator F6: Redox Dark Surface.

Upland sample points 2, 4, and 6 exhibited a matrix of dark olive brown (2.5 Y 3/3) rocky loam. Redox features were lacking in the uplands and this distinction was used to verify the edge of the wetland polygons. The top five inches of the soils were populated with 20 percent base rock that likely spilled over into the low-lying areas adjacent to the recently constructed residential development. When the concrete retaining walls were built to the east this rock material likely was deposited during construction. On the west side of the Iron Horse Trail rock is found on the slope where ballast for the abandoned rail road line was incorporated in the soils during construction and over the years of operation.



### 4.2.3 Hydrology

Numerous primary wetland hydrology indicators within the seasonal wetlands were recorded at sample point 1 (which represents SW-1) where surface water (A1), high water table (A2), and inundation on aerial imagery (B7) were observed. At sample points 3 and 5 (which represent SW-2, WDD-1 and WDD-2, surface water (A1), saturation (A3), water marks (B1), sediment deposits (B2), inundation visible on aerial imagery (B7) and biotic crust (B12) were observed.

Approximately 2 inches of rainfall was recorded on February 28, 2018 prior to the field visit on March 6, 2018. The study area was observed to have standing water at all the wetland locations.

No visible signs of flow were detected in the seasonal wetlands (SW-1 and SW-2) located on the northeast side of the Iron Horse Trail. These appear to be confined to the limits of the topographic low points between the levee toe to the west and the concrete retaining walls to the east. The Iron Horse Trail levee is an impediment to water reaching the Chabot Channel to the west. In the southern most reach of the study area, a culvert pipe occurs south of the SW-2. This pipe lies a few feet above the elevation at which ponding occurs in SW-2. In the past, prior to subdivision development and retaining wall and detention basin construction, it is likely that water from the east contributed to ponding and water movement along the rail road levee toe. Current land configuration has diverted water into retention basins from the high-density housing to the east. It appears that water that once contributed to SW-1 and SW-2 is now diverted to urban detention basins. It is possible that in the past water flows moved south from the existing location at SW-1 and SW-2. That does not appear to be possible with current barriers to water movement and higher elevation of culvert pipe in relationship to elevation of levee toe.

On the southwestern toe of the Iron Horse Trail culverts exist to the north and south of WDD-1, WDD-2 and WDD-3. Some evidence of water movement to the north was observed. It is likely that under heavy rain fall water moves from the south to the north along the southwestern levee toe and enters the storm drain located at Dublin Boulevard. A culvert pipe is present at the end of the toe swale where it meets Dublin Boulevard to the north. WDD-1 lies adjacent to the culvert pipe at Dublin Boulevard, while WDD-2 and WDD-3 likely contribute water flow under heavy rainfall conditions, appearing to flow from south to north. There were limited signs of vegetation being pressed to the ground along an approximately 240-linear foot section between WDD-2 and WDD-3, but this area lacks a defined bed and bank and supports no wetland vegetation. A swale is formed at the toe of the Iron Horse Trail levee, but the entirety of the toe does not support wetland conditions between the three wetland drainage ditch features.

## 4.3 Clean Water Act Analysis

A Jurisdictional Determination Analysis Map, which summarizes the information presented here, can be found in Appendix A. This section provides a brief summary of the Section III Clean Water Act Analysis (CWA Analysis), Parts A and B for all delineated features, which is supplemental information requested by the Corp's San Francisco District. Information used to support the CWA Analysis presented herein includes the following: Review of U.S. Geological



Survey (USGS) topographic quadrangles and high-resolution aeriels covering the study area and field studies conducted in April 2018.

### **4.3.1 Corps Jurisdictional Wetlands**

Three wetland drainage ditches (WDD-1, WDD-2 and WDD-3) delineated within the study area appear to be tributary to waters of the U.S. and therefore, would potentially fall under the jurisdiction of the Corps based on the presence of a chemical, physical or biological connection to waters of the U.S., as described in further detail below.

WDD-1, WDD-2, and WDD-3 are connected to each other along the toe of the Iron Horse Trail levee and are wetlands located adjacent to a RPW via connection through the storm drain system along Dublin Boulevard. The Chabot Channel is a relatively permanent water as established by its seasonal flow that is present continuously for more than three months of the year, coinciding with the rainy season. The water that collects within WDD-1, WDD-2, and WDD-3 can move to the north under heavy rainfall events, entering the storm drain to Chabot Channel and thus directly tributary to a water of the U.S. Some of the biological functions these wetlands perform include the transport of water and nutrients to downstream waters, processing of organic wastes, attenuation of downstream flooding through interception of surface runoff and water storage onsite, reduction of suspended sediment delivered to downstream waters, groundwater replenishment, and supporting biodiversity at the site and watershed levels through provision of wetland habitat.

### **4.3.2 Non-Corps Jurisdictional Wetlands/Isolated Wetlands (State Jurisdiction)**

Seasonal wetlands (SW-1 and SW-2) delineated within the study area are not tributary to waters of the U.S. and therefore, do not appear to be under the jurisdiction of the Corps based on the absence of a chemical, physical or biological connection to waters of the U.S., as described in further detail below. Therefore, these seasonal wetlands fall within Sections F on the Approved Jurisdictional Delineation Form (Rapanos Form) as issued by the Corps.

It appears that the SW-1 and SW-2 qualify under Section F as non-jurisdictional waters, including wetlands, since these wetlands would likely have been regulated under the “Migratory Bird Rule” prior to the “SWANCC” ruling by the Supreme Court on January 1st 2001. The site provides limited winter foraging for migratory birds within the seasonal wetlands. The seasonal wetlands are inundated for longer than two weeks and function in a low capacity in shore bird or water fowl foraging (SW-2 supports water for a longer period of time). As such, these wetlands would likely be considered waters of the State and regulated by the Regional Water Quality Control Board as isolated wetlands.

Substantiation of the lack of a chemical, physical or biological connection to waters of the U.S. is provided below.



The hydrologic regime on the north side of the Iron Horse Trail consists of a contained system where water does not flow off the 1-acre watershed to enter a water of the U.S. The isolated wetlands within the study area were observed to consist of shallow topographic depressions at the toe of a repurposed rail road levee. Seasonal rainfall sheet flows off the paved surfaces and northeastern levee slope and collects in toe formed at the base of the levee where no outlet for drainage is present, and thus no physical connection to waters of the U.S can be substantiated.

The study area is surrounded by paved road surfaces which prevent the potential movement of water off site. Water which fills the topographic depressions on the site would not exceed a quantity or volume that would flow off the study area based on the small size of the watershed (1 acre). Since water flows are not documented to move off of the study area there is no transport of chemicals or other biological mater from the study area to a waters of the U.S. The nearest potentially Corps jurisdictional feature in the vicinity is Chabot Channel which is separated from connection through the Iron Horse Trail levee.

On site hydrology is limited to direct precipitation and there is no larger contributing watershed located at higher elevations to add water volume to the hydrology of the study area. Rain water that flows off the adjacent development to the east is funneled into onsite detention basins and does not reach SW-1 and SW-2.

Based on the presence of ponded water above the soil surface within the study area, some form of a restrictive layer is present below the top 12 inches of the soil matrix which does not allow for water to permeate the soil in the locations where the seasonal wetlands have formed. Soils are described by the NRCS as having very slow permeability which matches the conditions observed on site. The lack of permeability contributes to the formation of seasonal wetlands on the site and minimizes the potential for subsurface water flows to nearby waters of the U.S.

The seasonal wetlands within the study area meet the three Corps parameters for wetlands but are not located adjacent to and/or abutting a waters of the U.S. and therefore are likely regulated as isolated wetlands by the RWQCB as waters of the State.







# CHAPTER 5

## Report Preparation and References

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### 5.1 Report Preparation

Metis Environmental  
437 Alcatraz Avenue  
Oakland, CA 94609

Project Manager:	P. Berryhill
Wetland Delineation:	J. King
Report Preparation:	J. King
Graphics:	J. King

### 5.2 References and Sources Consulted

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# APPENDIX A

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## Delineation Maps





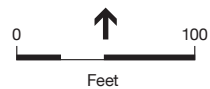




	Map ID	Acres	Sq Ft	Linear Ft
<b>CORPS WETLANDS**</b>				
Wetland Drainage Ditch	WDD-1	0.01	559.75	75.90
Wetland Drainage Ditch	WDD-2	0.01	562.83	67.15
Wetland Drainage Ditch	WDD-3	0.15	6632.97	558.86
<b>TOTAL</b>		<b>0.17</b>	<b>7755.55</b>	<b>701.91</b>
<b>ISOLATED WETLANDS**</b>				
Seasonal Wetland	SW-1	0.01	291.41	40.00
Seasonal Wetland	SW-2	0.10	4178.91	308.98
<b>TOTAL</b>		<b>0.11</b>	<b>4470.32</b>	<b>348.98</b>
Data Points	DP-1 to 6	—	—	—

#### LEGEND

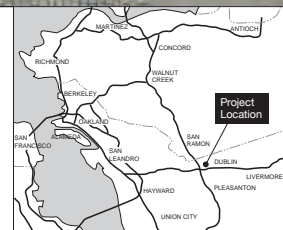
Study Area Boundary	---	Wetland	■	Alternative 1	—
Detention Basin	—	Data Point	●	Alternative 2	—
				Alternative 3	---



#### NOTES:

\*This exhibit depicts information and data produced in strict accord with the U.S. Army Corps of Engineers wetland delineation methods described in the 1987 Corps of Engineers Wetland Delineation Manual and conforms to specifications per the Corps Sacramento District. However, wetland boundaries have not been legally surveyed and may be subject to minor adjustments if exact locations are required.

\*\*The acreage value for each feature has been rounded to the nearest 1/100 decimal. Summation of these values may not equal the total potential Waters of the U.S. acreage reported.



**M** Metis Environmental Group

IRON HORSE TRAIL  
DUBLIN BOULEVARD OVERCROSSING PROJECT  
Dublin, California

## Wetland Delineation Map\*

Preparation Date: 5-31-2018







## **APPENDIX B**

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### Wetland Datasheets







# WETLAND DETERMINATION DATA FORM – Arid West Region

*Iron Horse at*

Project/Site: Scarlett Drive. City/County: Alameda Sampling Date: 3/6/2018

Applicant/Owner: \_\_\_\_\_ State: CA Sampling Point: 1

Investigator(s): J. King, P. Berryhill Section, Township, Range: \_\_\_\_\_

Landform (hillslope, terrace, etc.): terrace (NRCS) Local relief (concave, convex, none): concave Slope (%): 0-2

Subregion (LRR): \_\_\_\_\_ Lat: 37°42'18.79" Long: 121°54'10.23" Datum: \_\_\_\_\_

Soil Map Unit Name: Clear Lake clay, drained. 0 to 2 % slopes NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	
Remarks: <u>Facultative community supported by seasonal ponding. Watershed small-consists of slopes from Iron Horse trail adjacent land to north.</u>	

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>66</u> (A/B)
1. _____				
2. _____				
3. _____				
4. _____				
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>110</u> x 3 = <u>330</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>110</u> (A) <u>330</u> (B) Prevalence Index = B/A = <u>3</u>
Sapling/Shrub Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
_____ = Total Cover				
Herb Stratum (Plot size: <u>3m<sup>2</sup></u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> Dominance Test is >50% <input checked="" type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> _____ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Distichlis spicata</u>	<u>70</u>	<u>Y</u>	<u>FAC</u>	
2. <u>Xanthium strumarium</u>	<u>10</u>	<u>N</u>	<u>FAC</u>	
3. <u>Lolium multiflorum</u>	<u>30</u>	<u>Y</u>	<u>FAC</u>	
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
_____	<u>110</u>		<u>= Total Cover</u>	
Woody Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
1. _____				
2. _____				
_____ = Total Cover				
% Bare Ground in Herb Stratum <u>0</u>	% Cover of Biotic Crust <u>0</u>			
Remarks: <u>Wetland vegetation present.</u>				



Sampling Point: 1

<p><b>Profile Description:</b> (Describe to the depth needed to document the indicator or confirm the absence of indicators.)</p>	
---	--

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

## Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)                   |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)               |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)           |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)           |
| <input type="checkbox"/> Stratified Layers (A5) (LRR C)    | <input type="checkbox"/> Depleted Matrix (F3)               |
| <input type="checkbox"/> 1 cm Muck (A9) (LRR D)            | <input checked="" type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7)         |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)             |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)                  |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes ☒ No ☐

Remarks:

## HYDROLOGY

### Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> Surface Water (A1)                 | <input type="checkbox"/> Salt Crust (B11)                              |
| <input checked="" type="checkbox"/> High Water Table (A2)              | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                               | <input type="checkbox"/> Aquatic Invertebrates (B13)                   |
| <input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )       | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> ) | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) ( <b>Nonriverine</b> )    | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                      | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)     | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                     | <input type="checkbox"/> Other (Explain in Remarks)                    |

**Secondary Indicators (2 or more required)**

- \_\_\_ Water Marks (B1) (**Riverine**)
- \_\_\_ Sediment Deposits (B2) (**Riverine**)
- \_\_\_ Drift Deposits (B3) (**Riverine**)
- \_\_\_ Drainage Patterns (B10)
- \_\_\_ Dry-Season Water Table (C2)
- \_\_\_ Crayfish Burrows (C8)
- \_\_\_ Saturation Visible on Aerial Imagery (C9)
- \_\_\_ Shallow Aquitard (D3)
- \_\_\_ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes ☒ No ☐ Depth (inches): 1"

Water Table Present? Yes \_\_\_\_\_ No \_\_\_\_\_ Depth (inches): \_\_\_\_\_

Saturation Present? Yes \_\_\_\_\_ No \_\_\_\_\_ Depth (inches): \_\_\_\_\_

(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Water about 1" deep in vicinity of soil test pit. H<sub>2</sub>O filled hole instantly upon digging pit.



# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Iron Horse at Scarlett Drive. City/County: Alameda Sampling Date: 3/6/2018  
 Applicant/Owner: \_\_\_\_\_ State: CA Sampling Point: 2  
 Investigator(s): J. King, P. Berryhill Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): terrace (NRCS) Local relief (concave, convex, none): none Slope (%): 0-2  
 Subregion (LRR): \_\_\_\_\_ Lat: 37°42'18.82" Long: 121°54'10.08" Datum: \_\_\_\_\_  
 Soil Map Unit Name: Clear Lake clay, drained. 0 to 2 % slopes NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes \_\_\_\_\_ No ✓  
 Hydric Soil Present? Yes \_\_\_\_\_ No ✓  
 Wetland Hydrology Present? Yes \_\_\_\_\_ No ✓

Is the Sampled Area within a Wetland? Yes \_\_\_\_\_ No ✓

Remarks: upland position to compare to adjacent swale.

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u>	(A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>3</u>	(B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u>	(A/B)
4. _____	_____	_____	_____		
_____ = Total Cover					
Sapling/Shrub Stratum (Plot size: _____)				Prevalence Index worksheet:	
1. _____	_____	_____	_____	Total % Cover of: _____	Multiply by: _____
2. _____	_____	_____	_____	OBL species <u>0</u> x 1 = <u>0</u>	
3. _____	_____	_____	_____	FACW species <u>0</u> x 2 = <u>0</u>	
4. _____	_____	_____	_____	FAC species <u>0</u> x 3 = <u>0</u>	
5. _____	_____	_____	_____	FACU species <u>0</u> x 4 = <u>0</u>	
_____ = Total Cover				UPL species <u>85</u> x 5 = <u>425</u>	
Herb Stratum (Plot size: <u>3 m<sup>2</sup></u> )				Column Totals: <u>85</u> (A)	<u>425</u> (B)
1. <u>Brassica nigra</u>	<u>30</u>	<u>Y</u>	<u>UPL</u>	Prevalence Index = B/A = <u>5</u>	
2. <u>Bromus diandrus</u>	<u>35</u>	<u>Y</u>	<u>UPL</u>		
3. <u>Avena fatua</u>	<u>10</u>	<u>N</u>	<u>UPL</u>		
4. <u>Viscia sativa</u>	<u>10</u>	<u>N</u>	<u>UPL</u>		
5. _____	_____	_____	_____		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____		
8. _____	_____	_____	_____		
_____ = Total Cover					
Woody Vine Stratum (Plot size: _____)				Hydrophytic Vegetation Indicators:	
1. _____	_____	_____	_____	— Dominance Test is >50%	
2. _____	_____	_____	_____	— Prevalence Index is ≤3.0 <sup>1</sup>	
_____ = Total Cover				— Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)	
				— Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
% Bare Ground in Herb Stratum <u>15</u> % Cover of Biotic Crust <u>0</u>				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
Remarks: <u>upland position for comparison to DFI.</u>				Hydrophytic Vegetation Present? Yes _____ No <u>✓</u>	



[illegible]<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- \_\_\_ 1 cm Muck (A9) (LRR C)  
 \_\_\_ 2 cm Muck (A10) (LRR B)  
 \_\_\_ Reduced Vertic (F18)  
 \_\_\_ Red Parent Material (TF2)  
 \_\_\_ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes \_\_\_\_\_ No ☒

Remarks: Some rocky - base rock - fill debris.

**Wetland Hydrology Indicators:**

**Primary Indicators (minimum of one required; check all that apply)**

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                            | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                         | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                               | <input type="checkbox"/> Aquatic Invertebrates (B13)                   |
| <input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> )       | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> ) | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) ( <b>Nonriverine</b> )    | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                      | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)     | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                     | <input type="checkbox"/> Other (Explain in Remarks)                    |

**Secondary Indicators (2 or more required)**

- \_\_\_ Water Marks (B1) (**Riverine**)
- \_\_\_ Sediment Deposits (B2) (**Riverine**)
- \_\_\_ Drift Deposits (B3) (**Riverine**)
- \_\_\_ Drainage Patterns (B10)
- \_\_\_ Dry-Season Water Table (C2)
- \_\_\_ Crayfish Burrows (C8)
- \_\_\_ Saturation Visible on Aerial Imagery (C9)
- \_\_\_ Shallow Aquitard (D3)
- \_\_\_ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

Water Table Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

Saturation Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

Wetland Hydrology Present? Yes \_\_\_\_\_ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: No hydrology. DR2 up slope from the  
Swale described by DP1.



# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Iron Horse at Scarlett Drive. City/County: Alameda Sampling Date: 3/6/2018  
 Applicant/Owner: \_\_\_\_\_ State: CA Sampling Point: 3  
 Investigator(s): J. King, P. Berryhill Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): terrace (NRCS) Local relief (concave, convex, none): concave Slope (%): 0-2  
 Subregion (LRR): \_\_\_\_\_ Lat: 37°42'15.78" Long: 121°54'06.16" Datum: \_\_\_\_\_  
 Soil Map Unit Name: Clear Lake clay, drained. 0 to 2 % slopes NWI classification: NONE  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>✓</u> No _____	Is the Sampled Area within a Wetland? Yes <u>✓</u> No _____
Hydric Soil Present? Yes <u>✓</u> No _____	
Wetland Hydrology Present? Yes <u>✓</u> No _____	
Remarks: <u>Perennial hydrophytic vegetation is supported by seasonal inundation. Soils hydric. Wetland crit. are met.</u>	

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
1. _____				
2. _____				
3. _____				
4. _____				
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species <u>65</u> x 1 = <u>65</u> FACW species <u>1</u> x 2 = <u>2</u> FAC species <u>35</u> x 3 = <u>105</u> FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: <u>101</u> (A) <u>172</u> (B) Prevalence Index = B/A = <u>1.70</u>
_____ = Total Cover				
_____ = Total Cover				
_____ = Total Cover				
_____ = Total Cover				
<b>Herb Stratum (Plot size: <u>3m<sup>2</sup></u>)</b> 1. <u>Eleocharis macrostachya</u> <u>65</u> <u>Y</u> <u>OBL</u> 2. <u>Distichlis spicata</u> <u>35</u> <u>Y</u> <u>FAC</u> 3. <u>Cyperus eragrostis</u> <u>1</u> <u>N</u> <u>FACW</u> 4. _____ 5. <u>"E. palustris" in Arid West</u> 6. _____ 7. _____ 8. _____ _____ = Total Cover				<b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> Dominance Test is >50% <input checked="" type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
_____ = Total Cover				
_____ = Total Cover				
_____ = Total Cover				
_____ = Total Cover				
<b>Woody Vine Stratum (Plot size: _____)</b> 1. _____ 2. _____ _____ = Total Cover				<b>Hydrophytic Vegetation Present?</b> Yes <u>✓</u> No _____ <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
_____ = Total Cover				
_____ = Total Cover				
_____ = Total Cover				
_____ = Total Cover				
% Bare Ground in Herb Stratum <u>0</u> % Cover of Biotic Crust <u>0</u>				
Remarks: <u>Emergent wetland species dominant in swale meets hydrophytic criteria for wetland.</u>				



## SOIL

**Profile Description:** (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- \_\_\_ 1 cm Muck (A9) (LRR C)  
 \_\_\_ 2 cm Muck (A10) (LRR B)  
 \_\_\_ Reduced Vertic (F18)  
 \_\_\_ Red Parent Material (TF2)  
 \_\_\_ Other (Explain in Remarks)

Restrictive Layer (if present):

Hydric Soil Present? Yes ☒ No ☐

Remarks:

**Wetland Hydrology Indicators:**

**Secondary Indicators (2 or more required)**

- Field Observations:**

Wetland Hydrology Present? Yes ✓ No       

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: water perched above soil surface with shallow linear polygon in lowest topo of swale



# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Iron Horse at Scarlett Drive. City/County: Alameda Sampling Date: 3/6/2018  
 Applicant/Owner: \_\_\_\_\_ State: CA Sampling Point: 4  
 Investigator(s): J. King, P. Berryhill Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): terrace (NRCS) Local relief (concave, convex, none): \_\_\_\_\_ Slope (%): 0-2  
 Subregion (LRR): \_\_\_\_\_ Lat: 37° 42' 15.66" Long: 121° 54' 06.26" Datum: \_\_\_\_\_  
 Soil Map Unit Name: Clear Lake clay, drained. 0 to 2 % slopes NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>✓</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>✓</u>
Hydric Soil Present? Yes _____ No <u>✓</u>	
Wetland Hydrology Present? Yes _____ No <u>✓</u>	
Remarks: <u>upland position.</u>	

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>33</u> (A/B)
1. _____				
2. _____				
3. _____				
4. _____				
			= Total Cover	<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>35</u> x 3 = <u>105</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>55</u> x 5 = <u>275</u> Column Totals: <u>90</u> (A) <u>380</u> (B) Prevalence Index = B/A = <u>4.2</u>
			= Total Cover	
			= Total Cover	
			= Total Cover	
			= Total Cover	
<b>Sapling/Shrub Stratum (Plot size: _____)</b> 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover				<b>Hydrophytic Vegetation Indicators:</b> _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 <sup>1</sup> _____ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
<b>Herb Stratum (Plot size: <u>3m<sup>2</sup></u>)</b> 1. <u>Helminthotheca echioides</u> <u>25</u> <u>Y</u> <u>FAC</u> 2. <u>Bromus diandrus</u> <u>25</u> <u>Y</u> <u>UPL</u> 3. <u>Avena fatua</u> <u>30</u> <u>Y</u> <u>UPL</u> 4. <u>Lolium multiflorum</u> <u>10</u> <u>N</u> <u>FAC</u> 5. _____ 6. _____ 7. _____ 8. _____ _____ = Total Cover				
<b>Woody Vine Stratum (Plot size: _____)</b> 1. _____ 2. _____ _____ = Total Cover				
% Bare Ground in Herb Stratum <u>10</u> % Cover of Biotic Crust _____				
<b>Hydrophytic Vegetation Present?</b> Yes _____ No <u>✓</u>				

Remarks: Upland position for comparison to DP 3.



## SOIL

**Sampling Point:**

4

[illegible]<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes No ☒

Remarks: Upland colors. Not hydric

**Wetland Hydrology Indicators:**

**Secondary Indicators (2 or more required)**

- |   |   |  |
|---|---|--|
| ___ Surface Water (A1)                            | ___ Salt Crust (B11)                              | ___ Water Marks (B1) ( <b>Riverine</b> )       |
| ___ High Water Table (A2)                         | ___ Biotic Crust (B12)                            | ___ Sediment Deposits (B2) ( <b>Riverine</b> ) |
| ___ Saturation (A3)                               | ___ Aquatic Invertebrates (B13)                   | ___ Drift Deposits (B3) ( <b>Riverine</b> )    |
| ___ Water Marks (B1) ( <b>Nonriverine</b> )       | ___ Hydrogen Sulfide Odor (C1)                    | ___ Drainage Patterns (B10)                    |
| ___ Sediment Deposits (B2) ( <b>Nonriverine</b> ) | ___ Oxidized Rhizospheres along Living Roots (C3) | ___ Dry-Season Water Table (C2)                |
| ___ Drift Deposits (B3) ( <b>Nonriverine</b> )    | ___ Presence of Reduced Iron (C4)                 | ___ Crayfish Burrows (C8)                      |
| ___ Surface Soil Cracks (B6)                      | ___ Recent Iron Reduction in Tilled Soils (C6)    | ___ Saturation Visible on Aerial Imagery (C9)  |
| ___ Inundation Visible on Aerial Imagery (B7)     | ___ Thin Muck Surface (C7)                        | ___ Shallow Aquitard (D3)                      |
| ___ Water-Stained Leaves (B9)                     | ___ Other (Explain in Remarks)                    | ___ FAC-Neutral Test (D5)                      |

Surface Water Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_

Water Table Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_

Saturation Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

Wetland Hydrology Present? Yes No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: On slope to swale - no hydric indicators.



*Iron Horse at*

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Scarlett Drive. City/County: Alameda Sampling Date: 3/6/2018  
 Applicant/Owner: \_\_\_\_\_ State: CA Sampling Point: 5  
 Investigator(s): J. King, P. Berryhill Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): terrace (NRCS) Local relief (concave, convex, none): concave Slope (%): 0-2  
 Subregion (LRR): \_\_\_\_\_ Lat: 37° 42' 16.96" Long: 121° 54' 09.11" Datum: \_\_\_\_\_  
 Soil Map Unit Name: Clear Lake clay, drained. 0 to 2 % slopes NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	
Remarks: <i>historic train track ditch on down hill slope from levee. Some culverts to north + south exist but appear to cease in function. Appears isolated</i>	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
1. _____				
2. _____				
3. _____				
4. _____				
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>35</u> x 2 = <u>70</u> FAC species <u>55</u> x 3 = <u>165</u> FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: <u>90</u> (A) <u>235</u> (B) Prevalence Index = B/A = <u>2.6</u>
_____ = Total Cover				
_____ = Total Cover				
_____ = Total Cover				
_____ = Total Cover				
<b>Herb Stratum (Plot size: <u>3m<sup>2</sup></u>)</b>				
1. <u>Xanthium strumarium</u>	<u>20</u>	<u>Y</u>	<u>FAC</u>	<b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> Dominance Test is >50% <input checked="" type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> _____ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Polypogon monspeliensis</u>	<u>15</u>	<u>Y</u>	<u>FACW</u>	
3. <u>Lemus tritichoides</u>	<u>25</u>	<u>Y</u>	<u>FAC</u>	
4. <u>Helminthotheca echioides</u>	<u>10</u>	<u>N</u>	<u>FAC</u>	
5. <u>Frankenia salina</u>	<u>20</u>	<u>Y</u>	<u>FACW</u>	
6. _____				
7. _____				
8. _____				
_____ = Total Cover				
<b>Woody Vine Stratum (Plot size: _____)</b>				
1. _____				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
2. _____				
_____ = Total Cover				
% Bare Ground in Herb Stratum <u>0</u> % Cover of Biotic Crust <u>10</u>				

Remarks: *Hydrophytic vegetation sitting in standing water*



Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features		Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
	Color (moist)	%	Color (moist)	%				
0-5	2.5 <sup>3</sup> / <sub>1</sub>	100					clay loam	
5-14	2.5 <sup>2.5</sup> / <sub>1</sub>	90	2.5 <sup>5</sup> / <sub>6</sub>	10	D	M	clay	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input checked="" type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes ☒ No ☐

Remarks: \_\_\_\_\_

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (2 or more required)
Primary Indicators (minimum of one required; check all that apply)		
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input checked="" type="checkbox"/> Biotic Crust (B12) <i>Algal Matting</i>	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input checked="" type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input checked="" type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input checked="" type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes ☒ No ☐ Depth (inches): 12-24"

Water Table Present? Yes ☐ No ☐ Depth (inches): \_\_\_\_\_

Saturation Present? Yes ☐ No ☐ Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: *Swale adjacent to Iron Horse trail levee with no outlet to drain. Outlets occur at a higher elevation than swale bottom. Water a foot + deep with pronounced algal matting on surface.*



# WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Iron Horse@ Scarlett Drive. City/County: Alameda Sampling Date: 3/6/2018  
 Applicant/Owner: \_\_\_\_\_ State: CA Sampling Point: 6  
 Investigator(s): J. King, P. Berryhill Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): terrace (NRCS) Local relief (concave, convex, none): slope Slope (%): 0-2  
 Subregion (LRR): \_\_\_\_\_ Lat: 37°42'17.06" Long: 121°54'09.02" Datum: \_\_\_\_\_  
 Soil Map Unit Name: Clear Lake clay, drained. 0 to 2 % slopes NWI classification: none  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>✓</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>✓</u>
Hydric Soil Present? Yes _____ No <u>✓</u>	
Wetland Hydrology Present? Yes _____ No <u>✓</u>	
Remarks: <u>upland for comparison to wetland position.</u>	

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>5</u> x 3 = <u>15</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>80</u> x 5 = <u>400</u> Column Totals: <u>85</u> (A) <u>415</u> (B) Prevalence Index = B/A = <u>4.88</u>
Sapling/Shrub Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
Herb Stratum (Plot size: <u>3m<sup>2</sup></u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Hydrophytic Vegetation Indicators:</b> _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 <sup>1</sup> _____ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1. <u>Avena fatua</u>	<u>30</u>	<u>Y</u>	<u>UPL</u>	
2. <u>Bromus diandrus</u>	<u>25</u>	<u>Y</u>	<u>UPL</u>	
3. <u>Brassica nigra</u>	<u>25</u>	<u>Y</u>	<u>UPL</u>	
4. <u>Helminthotheca echioides</u>	<u>5</u>	<u>N</u>	<u>FAC</u>	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
<u>85</u> = Total Cover				
Woody Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Hydrophytic Vegetation Present?</b> Yes _____ No <u>✓</u>
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				
% Bare Ground in Herb Stratum <u>15</u>	% Cover of Biotic Crust <u>0</u>			
Remarks: <u>Slope from Iron Horse trail to swale on south west side.</u>				



Scarlett Drive

## SOIL

**Sampling Point:**

6

**Profile Description:** (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- |                                       |                                |
|---------------------------------------|--------------------------------|
| ___ Histosol (A1)                     | ___ Sandy Redox (S5)           |
| ___ Histic Epipedon (A2)              | ___ Stripped Matrix (S6)       |
| ___ Black Histic (A3)                 | ___ Loamy Mucky Mineral (F1)   |
| ___ Hydrogen Sulfide (A4)             | ___ Loamy Gleyed Matrix (F2)   |
| ___ Stratified Layers (A5) (LRR C)    | ___ Depleted Matrix (F3)       |
| ___ 1 cm Muck (A9) (LRR D)            | ___ Redox Dark Surface (F6)    |
| ___ Depleted Below Dark Surface (A11) | ___ Depleted Dark Surface (F7) |
| ___ Thick Dark Surface (A12)          | ___ Redox Depressions (F8)     |
| ___ Sandy Mucky Mineral (S1)          | ___ Vernal Pools (F9)          |
| ___ Sandy Gleyed Matrix (S4)          |                                |

- ☐ 1 cm Muck (A9) (LRR C)  
☐ 2 cm Muck (A10) (LRR B)  
☐ Reduced Vertic (F18)  
☐ Red Parent Material (TF2)  
☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes \_\_\_\_\_ No ☒

Remarks:

## HYDROLOGY

**Wetland Hydrology Indicators:**

**Primary Indicators (minimum of one required; check all that apply)**

**Secondary Indicators (2 or more required)**

- |   |   |  |
|---|---|--|
| ___ Surface Water (A1)                            | ___ Salt Crust (B11)                              | ___ Water Marks (B1) ( <b>Riverine</b> )       |
| ___ High Water Table (A2)                         | ___ Biotic Crust (B12)                            | ___ Sediment Deposits (B2) ( <b>Riverine</b> ) |
| ___ Saturation (A3)                               | ___ Aquatic Invertebrates (B13)                   | ___ Drift Deposits (B3) ( <b>Riverine</b> )    |
| ___ Water Marks (B1) ( <b>Nonriverine</b> )       | ___ Hydrogen Sulfide Odor (C1)                    | ___ Drainage Patterns (B10)                    |
| ___ Sediment Deposits (B2) ( <b>Nonriverine</b> ) | ___ Oxidized Rhizospheres along Living Roots (C3) | ___ Dry-Season Water Table (C2)                |
| ___ Drift Deposits (B3) ( <b>Nonriverine</b> )    | ___ Presence of Reduced Iron (C4)                 | ___ Crayfish Burrows (C8)                      |
| ___ Surface Soil Cracks (B6)                      | ___ Recent Iron Reduction in Tilled Soils (C6)    | ___ Saturation Visible on Aerial Imagery (C9)  |
| ___ Inundation Visible on Aerial Imagery (B7)     | ___ Thin Muck Surface (C7)                        | ___ Shallow Aquitard (D3)                      |
| ___ Water-Stained Leaves (B9)                     | ___ Other (Explain in Remarks)                    | ___ FAC-Neutral Test (D5)                      |

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_

Water Table Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_

Saturation Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No hydro. DP on a slope.



## **APPENDIX C**

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### Approved Jurisdictional Determination Form (Rapanos Form)







**APPROVED JURISDICTIONAL DETERMINATION FORM**  
**U.S. Army Corps of Engineers**

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

**SECTION I: BACKGROUND INFORMATION**

**A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): May 30, 2018**

**B. DISTRICT OFFICE, FILE NAME, AND NUMBER:**

San Francisco District

Iron Horse Bridge Trail Project

**C. PROJECT LOCATION AND BACKGROUND INFORMATION:**

State: California County/parish/borough: Alameda City: Dublin

Center coordinates of site (lat/long in degree decimal format): Lat. 37 42' 20.40"° **N**, Long. 121 54'13.09"° **W**.

Universal Transverse Mercator:

Name of nearest waterbody: Chabot Canal

Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: San Francisco Bay

Name of watershed or Hydrologic Unit Code (HUC): 18050004 (San Francisco Bay)

☒ Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.

☐ Check if other sites (e.g., offsite mitigation sites, disposal sites, etc...) are associated with this action and are recorded on a different JD form.

**D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):**

☐ Office (Desk) Determination. Date:

☐ Field Determination. Date(s):

**SECTION II: SUMMARY OF FINDINGS**

**A. RHA SECTION 10 DETERMINATION OF JURISDICTION.**

There **Are no** "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [Required]

☐ Waters subject to the ebb and flow of the tide.

☐ Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.

Explain: .

**B. CWA SECTION 404 DETERMINATION OF JURISDICTION.**

There **are and are not** "waters of the U.S." within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [Required]

**1. Waters of the U.S.**

**a. Indicate presence of waters of U.S. in review area (check all that apply):<sup>1</sup>**

☐ TNWs, including territorial seas

☐ Wetlands adjacent to TNWs

☐ Relatively permanent waters<sup>2</sup> (RPWs) that flow directly or indirectly into TNWs

☐ Non-RPWs that flow directly or indirectly into TNWs

☐ Wetlands directly abutting RPWs that flow directly or indirectly into TNWs

☒ Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs

☐ Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs

☐ Impoundments of jurisdictional waters

☒ Isolated (interstate or intrastate) waters, including isolated wetlands

**b. Identify (estimate) size of waters of the U.S. in the review area:**

Non-wetland waters: linear feet: width (ft) and/or acres.

Wetlands: 0.15 acres.

**c. Limits (boundaries) of jurisdiction based on: Established by OHWM.**

Elevation of established OHWM (if known): .

**2. Non-regulated waters/wetlands (check if applicable):<sup>3</sup>**

☒ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional.

Explain: **Approximately 0.1 acre isolated wetland with no outlet to downstream receiving bodies. (Metis, 2018).**

<sup>1</sup> Boxes checked below shall be supported by completing the appropriate sections in Section III below.

<sup>2</sup> For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).

<sup>3</sup> Supporting documentation is presented in Section III.F.



### **SECTION III: CWA ANALYSIS**

#### **A. TNWs AND WETLANDS ADJACENT TO TNWs**

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

**1. TNW**

Identify TNW: .

Summarize rationale supporting determination: .

**2. Wetland adjacent to TNW**

Summarize rationale supporting conclusion that wetland is “adjacent”: .

#### **B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):**

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under *Rapanos* have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are “relatively permanent waters” (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the waterbody<sup>4</sup> is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

**1. Characteristics of non-TNWs that flow directly or indirectly into TNW**

**(i) General Area Conditions:**

Watershed size: 2 acres

Drainage area: 2 acres

Average annual rainfall: 14.23 inches

Average annual snowfall: 0 inches

**(ii) Physical Characteristics:**

**(a) Relationship with TNW:**

☐ Tributary flows directly into TNW.

☒ Tributary flows through 4 tributaries before entering TNW.

Project waters are 30 (or more) river miles from TNW.

Project waters are 1-2 river miles from RPW.

Project waters are 20-25 aerial (straight) miles from TNW.

Project waters are 1-2 aerial (straight) miles from RPW.

Project waters cross or serve as state boundaries. Explain: .

---

<sup>4</sup> Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.



Identify flow route to TNW<sup>5</sup>: Wetland SW-3 and SW-4 are tributary to Chabot Channel which drains south to Arroyo Mocho. Arroyo Mocho is a tributary to Arroyo de la Laguna, which flows to Alameda Creek and eventually into San Francisco Bay.

Tributary stream order, if known: 5<sup>th</sup> order: Chabot Canal.

(b) General Tributary Characteristics (check all that apply):

**Tributary is:** ☐ Natural

☒ Artificial (man-made). Explain: The toe ditch at the base of the Iron Horse Trail levee is coincidental to construction.

☒ Manipulated (man-altered). Explain: The maintenance of the former rail road levee consisted of periodic land alteration on either side of the levee base.

**Tributary properties with respect to top of bank (estimate):**

Average width: depending on tributary range is between 8 to 10 feet

Average depth: depending on tributary range is between 6 inches and 2 feet

Average side slopes: **3:1**.

**Primary tributary substrate composition (check all that apply):**

☒ Silts

☐ Sands

☐ Concrete

☐ Cobbles

☒ Gravel

☐ Muck

☐ Bedrock

☒ Vegetation. Type/% cover: Seasonal wetland and freshwater emergent vegetation is between 50% and 90% cover within the Iron Horse Trail levee toe ditch

☐ Other. Explain: .

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: Stable levee slopes with paved walking trail on levee top.

Presence of run/riffle/pool complexes. Explain: None.

Tributary geometry: **Relatively straight**

Tributary gradient (approximate average slope): 1 %

(c) Flow:

Tributary provides for: **Ephemeral flow**

Estimate average number of flow events in review area/year: **2-5**

Describe flow regime: Winter storm events provide flow from rain fall runoff along the Iron Horse Trail during heavy rainfall. Average storm precipitation fills the levee toe ditches and water remains ponded for a long duration. At the time of heavy rainfall over a short time period the water levels can rise allowing flow to the north where water enters the culvert at Dublin Boulevard to the Chabot Channel.

Other information on duration and volume: .

Surface flow is: **Confined**. Characteristics: .

Subsurface flow: **Unknown**. Explain findings: .

☐ Dye (or other) test performed: .

Tributary has (check all that apply):

☐ Bed and banks

☒ OHWM<sup>6</sup> (check all indicators that apply):

☐ clear, natural line impressed on the bank

☐ the presence of litter and debris

☒ changes in the character of soil

☐ destruction of terrestrial vegetation

☐ shelving

☐ the presence of wrack line

☒ vegetation matted down, bent, or absent

☐ sediment sorting

☐ leaf litter disturbed or washed away

☐ scour

☒ sediment deposition

☐ multiple observed or predicted flow events

☒ water staining

☒ abrupt change in plant community

☐ other (list):

☒ Discontinuous OHWM.<sup>7</sup> Explain: Between WDD-1 and WDD-2, there occurs a higher topographic area (a slight rise in elevation) along the length of the toe ditch which shows only signs of plants being pressed down by water flow, but does not support or exhibit hydrophytic vegetation or standing water. WDD-1 and WDD-2 exhibit standing water and/or distinct hydrophytic vegetation.

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):

<sup>5</sup> Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.

<sup>6</sup> A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.

<sup>7</sup> Ibid.



- |  |  |
|--|--|
| <input type="checkbox"/> High Tide Line indicated by:              | <input type="checkbox"/> Mean High Water Mark indicated by:            |
| <input type="checkbox"/> oil or scum line along shore objects      | <input type="checkbox"/> survey to available datum;                    |
| <input type="checkbox"/> fine shell or debris deposits (foreshore) | <input type="checkbox"/> physical markings;                            |
| <input type="checkbox"/> physical markings/characteristics         | <input type="checkbox"/> vegetation lines/changes in vegetation types. |
| <input type="checkbox"/> tidal gauges                              |  |
| <input type="checkbox"/> other (list):                             |  |

**(iii) Chemical Characteristics:**

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).

Explain: .

Identify specific pollutants, if known: Various degrees of pollutants are possible. The toe drain lies at the base of a repurposed rail road levee. Could have pollutants in the soil from rail road maintenance and/or construction.



(iv) **Biological Characteristics. Channel supports (check all that apply):**

- ☐ Riparian corridor. Characteristics (type, average width): .
- ☒ Wetland fringe. Characteristics: Some emergent vegetation occurs along edges of water in toe ditch.
- ☐ Habitat for:
  - ☐ Federally Listed species. Explain findings: .
  - ☐ Fish/spawn areas. Explain findings: .
  - ☐ Other environmentally-sensitive species. Explain findings: .
  - ☐ Aquatic/wildlife diversity. Explain findings: .

2. **Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW**

(i) **Physical Characteristics:**

(a) General Wetland Characteristics:

Properties:

Wetland size: 0.15 acres

Wetland type. Explain: Seasonal wetland.

Wetland quality. Explain: Low quality seasonal wetland and emergent wetland associated with levee toe. Low diversity of wetland plants and presence of non-native species.

Project wetlands cross or serve as state boundaries. Explain: .

(b) General Flow Relationship with Non-TNW:

Flow is: **Ephemeral flow**. Explain: .

Surface flow is: **Discrete and confined**

Characteristics: .

Subsurface flow: **Unknown**. Explain findings: .

☐ Dye (or other) test performed: .

(c) Wetland Adjacency Determination with Non-TNW:

☐ Directly abutting

☒ Not directly abutting

☒ Discrete wetland hydrologic connection. Explain: Culvert pipe located at north end of WDD-1 conveys water into the Chabot Channel upon heavy rainfall events.

☐ Ecological connection. Explain: .

☐ Separated by berm/barrier. Explain: .

(d) Proximity (Relationship) to TNW

Project wetlands are **30 (or more)** river miles from TNW.

Project waters are **30 (or more)** aerial (straight) miles from TNW.

Flow is from: **Wetland to navigable waters.**

Estimate approximate location of wetland as within the **50 - 100-year** floodplain.

(ii) **Chemical Characteristics:**

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: Unknown.

Identify specific pollutants, if known: .

(iii) **Biological Characteristics. Wetland supports (check all that apply):**

- ☐ Riparian buffer. Characteristics (type, average width): .
- ☒ Vegetation type/percent cover. Explain: Seasonal wetland 50-75%.
- ☐ Habitat for:
  - ☐ Federally Listed species. Explain findings: .
  - ☐ Fish/spawn areas. Explain findings: .
  - ☐ Other environmentally-sensitive species. Explain findings: .
  - ☐ Aquatic/wildlife diversity. Explain findings: .

3. **Characteristics of all wetlands adjacent to the tributary (if any)**

All wetland(s) being considered in the cumulative analysis: **2**

Approximately ( 0.15 ) acres in total are being considered in the cumulative analysis.



For each wetland, specify the following:

<u>Directly abuts? (Y/N)</u>	<u>Size (in acres)</u>	<u>Directly abuts? (Y/N)</u>	<u>Size (in acres)</u>
WDD-1 Y	0.01		
WDD-2 Y	0.14		

Summarize overall biological, chemical and physical functions being performed: Overall some of the biological functions these wetlands perform include the transport of water and nutrients to downstream waters, processing of organic wastes, attenuation of downstream flooding through interception of surface runoff and water storage onsite, reduction of suspended sediment delivered to downstream waters, groundwater replenishment, and supporting biodiversity at the site and watershed levels through provision of wetland habitat.

### C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW, as identified in the *Rapanos* Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

**Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:**

1. **Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D: .
2. **Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: .
3. **Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: Linear wetlands located at the toe of the repurposed Iron Horse Trail levee support seasonal wetland vegetation and standing water for more than 14 days during the growing season. During heavy rainfall water can rise to the level of connecting culvert infrastructure and flow into a relatively permanent water within Chabot Channel.

### D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:  
☐ TNWs: linear feet width (ft), Or, acres.  
☐ Wetlands adjacent to TNWs: acres.
2. **RPWs that flow directly or indirectly into TNWs.**  
☐ Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial: .



- ☐ Tributaries of TNW where tributaries have continuous flow “seasonally” (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally: .

Provide estimates for jurisdictional waters in the review area (check all that apply):

- ☐ Tributary waters: linear feet width (ft).  
☐ Other non-wetland waters: acres.  
Identify type(s) of waters: .

**3. Non-RPWs<sup>8</sup> that flow directly or indirectly into TNWs.**

- ☐ Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional waters within the review area (check all that apply):

- ☐ Tributary waters: linear feet width (ft).  
☐ Other non-wetland waters: acres.  
Identify type(s) of waters: .

**4. Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.**

- ☒ Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.  
☐ Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .  
☒ Wetlands directly abutting an RPW where tributaries typically flow “seasonally.” Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: WDD-1 and WDD-2 occur within the toe of the Iron Horse Trail levee which appears only to support water flow during the rainy season. Water roughly flows southeast to northwest entering a culvert at Dublin Boulevard before entering RPW (Chabot Channel) and has a direct connection to the downstream tributary.

Provide acreage estimates for jurisdictional wetlands in the review area: **0.15** acres.

**5. Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs.**

- ☐ Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

**6. Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs.**

- ☐ Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional wetlands in the review area: acres.

**7. Impoundments of jurisdictional waters.<sup>9</sup>**

As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.

- ☐ Demonstrate that impoundment was created from “waters of the U.S.,” or  
☐ Demonstrate that water meets the criteria for one of the categories presented above (1-6), or  
☐ Demonstrate that water is isolated with a nexus to commerce (see E below).

**E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):<sup>10</sup>**

<sup>8</sup>See Footnote # 3.

<sup>9</sup>To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.

<sup>10</sup>Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA Memorandum Regarding CWA Act Jurisdiction Following Rapanos.



- ☐ which are or could be used by interstate or foreign travelers for recreational or other purposes.
- ☐ from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
- ☐ which are or could be used for industrial purposes by industries in interstate commerce.
- ☒ Interstate isolated waters. Explain: SW-1 and SW-2 occur on the northeast side of the Iron Horse Trail levee and are physically isolated from the southern toe ditch which feeds to Chabot Channel.
- ☐ Other factors. Explain: .

**Identify water body and summarize rationale supporting determination:** .

Provide estimates for jurisdictional waters in the review area (check all that apply):

- ☐ Tributary waters: linear feet width (ft).
- ☐ Other non-wetland waters: acres.
- Identify type(s) of waters: .
- ☒ Wetlands: Isolated wetlands SW-1 0.01, SW-2 0.09 acres.

**F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):**

- ☐ If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.
- ☐ Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.
  - ☐ Prior to the Jan 2001 Supreme Court decision in "SWANCC," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR).
- ☐ Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain: **Wetland meets the three parameter - vegetation, soils, and hydrology criteria for Corps determination of a wetland condition.**
- ☐ Other: (explain, if not covered above): .

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply):

- ☐ Non-wetland waters (i.e., rivers, streams): linear feet width (ft).
- ☐ Lakes/ponds: acres.
- ☐ Other non-wetland waters: acres. List type of aquatic resource: .
- ☐ Wetlands: acres.

Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (check all that apply):

- ☐ Non-wetland waters (i.e., rivers, streams): linear feet, width (ft).
- ☐ Lakes/ponds: acres.
- ☐ Other non-wetland waters: acres. List type of aquatic resource: .
- ☐ Wetlands: 0.01 acres.

**SECTION IV: DATA SOURCES.**

**A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):**

- ☒ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: .
- ☒ Data sheets prepared/submitted by or on behalf of the applicant/consultant.
  - ☐ Office concurs with data sheets/delineation report.
  - ☐ Office does not concur with data sheets/delineation report.
- ☐ Data sheets prepared by the Corps: .
- ☐ Corps navigable waters' study: .
- ☐ U.S. Geological Survey Hydrologic Atlas: .
  - ☐ USGS NHD data.
  - ☐ USGS 8 and 12 digit HUC maps.
- ☒ U.S. Geological Survey map(s). Cite scale & quad name: Livermore 1:24,000.
- ☒ USDA Natural Resources Conservation Service Soil Survey. Citation: Web Soil Survey: Alameda County 2018.
- ☒ National wetlands inventory map(s). Cite name: NWI Online Wetland Mapper.
- ☐ State/Local wetland inventory map(s): .
- ☐ FEMA/FIRM maps: .
- ☐ 100-year Floodplain Elevation is: (National Geodetic Vertical Datum of 1929)
- ☒ Photographs: ☒ Aerial (Name & Date): Google Earth Aerial photos between 1993 and 2018.



- or ☐ Other (Name & Date): \_\_\_\_\_.
- ☐ Previous determination(s). File no. and date of response letter: \_\_\_\_\_.
- ☐ Applicable/supporting case law: \_\_\_\_\_.
- ☐ Applicable/supporting scientific literature: \_\_\_\_\_.
- ☐ Other information (please specify): \_\_\_\_\_.

**B. ADDITIONAL COMMENTS TO SUPPORT JD:** \_\_\_\_\_.







## **APPENDIX D**

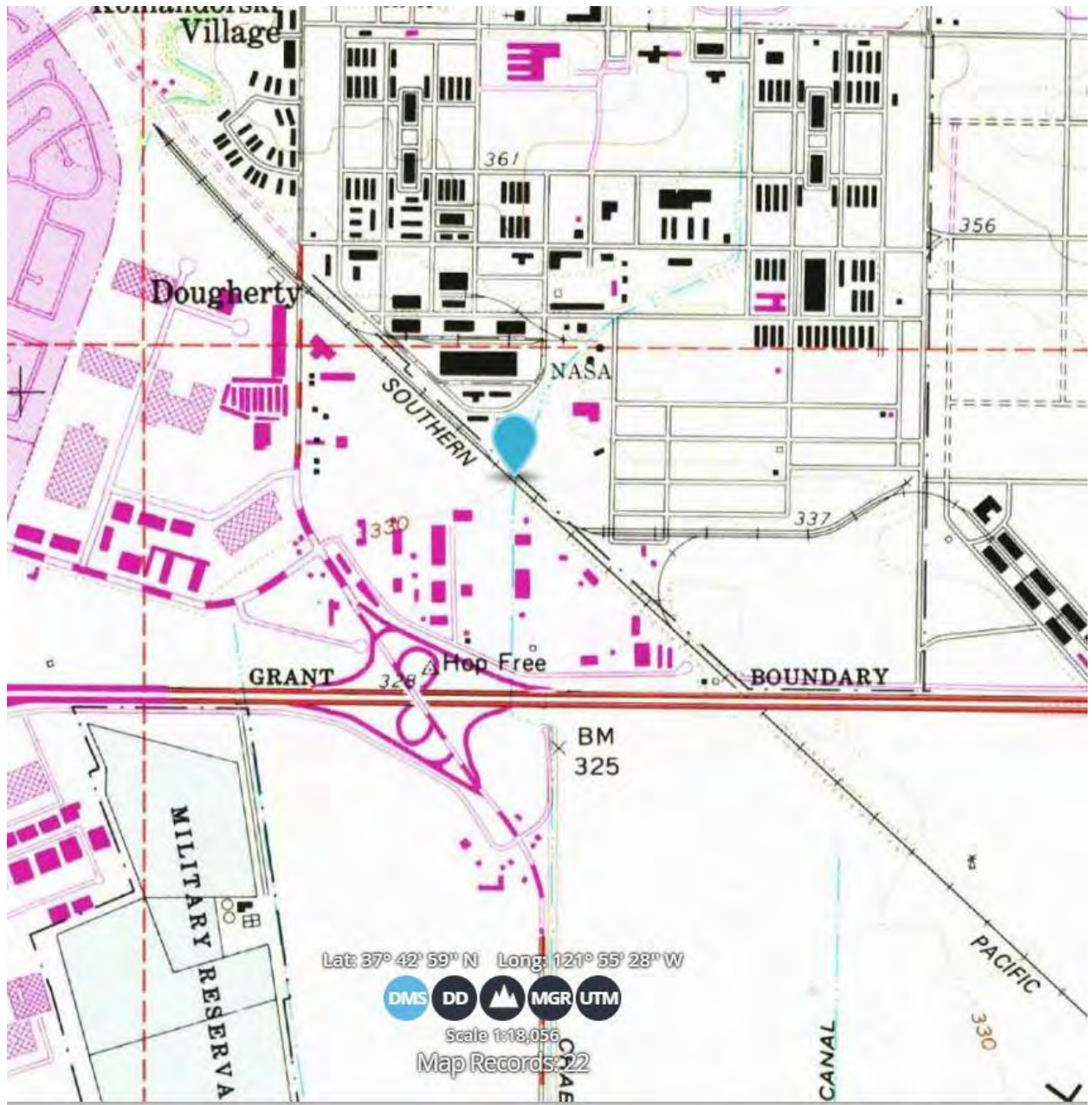
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### USGS 7.5 Minute Topographic Map, Dublin















# APPENDIX E

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## Soils Map







# Soil Map—Alameda Area, California



Natural Resources  
Conservation Service


Web Soil Survey  
National Cooperative Soil Survey

3/13/2018  
Page 1 of 3




## MAP LEGEND

### Area of Interest (AOI)

 Area of Interest (AOI)

### Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

### Special Point Features



Blowout



Borrow Pit



Clay Spot



Closed Depression



Gravel Pit



Gravelly Spot



Landfill



Lava Flow



Marsh or swamp



Mine or Quarry



Miscellaneous Water



Perennial Water



Rock Outcrop



Saline Spot



Sandy Spot



Severely Eroded Spot



Sinkhole



Slide or Slip



Sodic Spot



Spoil Area



Stony Spot



Very Stony Spot



Wet Spot



Other



Special Line Features

### Water Features



Streams and Canals

### Transportation



Rails



Interstate Highways



US Routes



Major Roads



Local Roads

### Background



Aerial Photography

## MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Alameda Area, California

Survey Area Data: Version 11, Sep 13, 2017

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 11, 2015—Jun 17, 2015

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.



## Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
CdA	Clear Lake clay, drained, 0 to 2 percent slopes, MLRA 14	46.4	98.3%
Pd	Pescadero clay	0.0	0.0%
Sm	Sunnyvale clay loam over clay	0.8	1.6%
<b>Totals for Area of Interest</b>		<b>47.2</b>	<b>100.0%</b>







## **APPENDIX F**

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### WETS Tables for Livermore, Alameda County







## WETS Table

WETS Station: LIVERMORE, CA													
Requested years: 1971 - 2018													
Month	Avg Max Temp	Avg Min Temp	Avg Mean Temp	Avg Precip	30% chance precip less than	30% chance precip more than	Avg number days precip 0.10 or more	Avg Snowfall					
Jan	57.2	38.0	47.6	2.71	1.23	3.27	6	0.0					
Feb	61.9	40.6	51.2	2.54	1.26	3.11	6	0.0					
Mar	66.3	42.9	54.6	2.20	0.91	2.68	6	0.0					
Apr	71.2	44.8	58.0	1.05	0.48	1.28	3	0.0					
May	77.5	49.2	63.3	0.39	0.11	0.38	1	0.0					
Jun	84.5	53.2	68.8	0.10	0.00	0.09	0	0.0					
Jul	89.5	55.8	72.7	0.02	0.00	0.00	0	0.0					
Aug	88.9	55.6	72.2	0.06	0.00	0.00	0	0.0					
Sep	86.3	54.0	70.1	0.19	0.00	0.16	0	0.0					
Oct	77.9	49.0	63.5	0.82	0.24	0.88	2	0.0					
Nov	65.2	42.5	53.8	1.69	0.68	2.05	4	0.0					
Dec	57.3	37.9	47.6	2.46	1.05	2.99	6	0.0					
Annual:					11.31	16.78							
Average	73.6	47.0	60.3	-	-	-	-	-					
Total	-	-	-	14.23			35	0.0					
GROWING SEASON DATES													
Years with missing data:	24 deg = 5	28 deg = 8	32 deg = 8										
Years with no occurrence:	24 deg = 39	28 deg = 8	32 deg = 0										
Data years used:	24 deg = 43	28 deg = 40	32 deg = 40										
Probability	24 F or higher	28 F or higher	32 F or higher										
50 percent *	No occurrence	1/12 to 12/23: 345 days	2/20 to 12/4: 287 days										
70 percent *	No occurrence	12/28 to 1/7: 375 days	2/10 to 12/14: 307 days										
* Percent chance of the growing season occurring between the Beginning and Ending dates.													
STATS TABLE - total precipitation (inches)													
Yr	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annl
1903	3.19	0.94	5.65	0.81	0.12	0.00	0.00	0.00	0.00	T	2.16	0.59	13.46
1904	0.89	4.18	3.71	1.56	0.24	T	T	0.32	1.62	1.00	0.70	1.42	15.64
1905	2.43	2.30	4.17	0.93	1.89	0.00	0.00	0.00	T	0.00	1.61	1.18	14.51
1906	5.56	2.67	5.18	0.95	1.61	0.56	T	0.00	0.20	0.03	1.34	6.45	24.55
1907	4.13	1.86	6.85	0.47	0.16	0.56	0.00	0.00		0.81	0.04	3.90	18.78
1908	2.27	1.35	0.73	0.28	0.53	T	T	0.00	0.03	0.27	0.60	1.55	7.61
1909	10.18	3.96	1.94		T	0.05	0.00	0.00	0.62	0.75	1.68	5.77	24.95
1910	2.50	1.14	1.90	0.10	T	0.04	T	0.00	0.10	0.29	0.10	1.32	7.49



1911	12.60	1.42	4.45	0.69	0.24	0.07	T	0.00	T	0.43	0.29	1.71	21.90
1912	2.66	0.20	1.99	0.73	0.94	0.65	T	0.00	0.48	0.71	0.44	0.81	9.61
1913	2.63	0.38	1.65	0.54	0.58	0.01	0.27	0.02	T	0.00	2.17	3.17	11.42
1914	7.10	2.11	0.66	0.76	0.45	0.19		0.00	0.00	0.42	0.33	4.96	16.98
1915	4.16	4.79	1.50	0.66	2.66	0.00	M0.00	0.00	T	0.00	0.76	4.41	18.94
1916	11.35	2.17	1.47	0.21	0.05	T	0.00	T	0.44	0.50	0.68	3.28	20.15
1917	1.06	3.37	1.08	0.15	0.02	0.00	T	0.00	0.04	0.00	0.43	0.66	6.81
1918	0.59	3.08	3.32	0.61	M0.00	T	0.00	T	5.72	0.39	2.38	1.51	17.60
1919	1.03	4.58	2.33	0.05	T	0.00	T	T	0.48	0.15	0.33	2.21	11.16
1920	0.22	0.71	3.52	1.07	0.00	0.13	0.00	0.00	T	2.03	1.43	3.81	12.92
1921	3.38	0.59	0.83	0.16	1.05	0.00	0.00	0.00	0.05	0.15	1.17	3.38	10.76
1922	1.51	5.46	1.83	0.23	0.27	T	T	T	0.00	0.54	2.86	5.43	18.13
1923	1.80	0.65	0.15	2.15	T	0.02	0.00	T	0.82	0.25	0.76	0.87	7.47
1924	1.40	0.93	0.65	0.28	0.07	0.00	0.00	T	T	1.30	1.53	2.63	8.79
1925	1.02	3.74	1.14	1.75	1.41	0.04	0.00	0.00	T	T	0.97	1.14	11.21
1926	2.35	3.58	0.16	3.11	0.11	T	0.00	T	0.00	0.93	2.83	0.78	13.85
1927	1.74	3.49	1.54	1.73	0.10	0.18	0.00	T	0.03	1.71	1.43	2.00	13.95
1928	1.46	0.29	3.42	1.43	0.45	0.00	0.00	0.00	0.00	T	1.50	2.76	11.31
1929	1.26	0.87	1.07	0.59	0.03	0.83	0.00	0.00	0.00	0.01	0.00	1.81	6.47
1930	3.64	1.91	1.88	0.63	0.43	0.00	0.00	T	0.20	0.00	1.14	0.26	10.09
1931	3.45	1.67	0.57	0.36	0.93	0.11	T	0.00	T	0.27	1.89	5.63	14.88
1932	1.29	3.15	0.19	0.41	0.37	T	0.00	0.00	0.00	0.00	0.51	2.03	7.95
1933	4.51	0.44	2.09	0.13	0.70	0.03	0.00	0.00	0.01	0.75	0.00	3.69	12.35
1934	1.29	2.86	0.00	0.13	0.60	0.53	0.00	T	0.27	0.62	2.71	2.32	11.33
1935	3.53	0.52	3.16	3.28	0.00	0.00	T	0.04	0.00	0.79	0.21	1.53	13.06
1936	3.28	6.76	0.71	0.63	0.46	0.10	T	T	0.00	0.40	0.02	3.26	15.62
1937	3.38	4.13	5.07	0.68	0.17	0.20	T	0.00	0.00	0.55	2.46	4.57	21.21
1938	2.40	6.14	4.09	0.90	0.02	0.00	0.00	0.00	T	1.00	1.08	0.52	16.15
1939	2.40	1.57	2.18	0.53	0.18	T	T	0.00	0.16	1.23	0.15	0.78	9.18
1940	8.13	5.14	2.60	0.35	0.14	0.00	0.00	0.00	0.25	0.50	0.43	4.63	22.17
1941	3.24	4.19	2.07	2.76	0.23	0.00	0.00	0.03	0.00	0.72	0.89	5.34	19.47
1942	3.89	1.68	1.42	3.10	1.00	0.00	0.00	0.00	0.09	1.08	3.05	1.73	17.04
1943	4.48	1.68	2.39	1.14	T	0.06	0.00	0.00	0.00	0.30	0.53	1.23	11.81
1944	2.36	4.89	1.01	0.94	0.73	T	0.00	0.00	0.00	0.77	3.41	2.03	16.14



1945	0.87	3.68	3.19	0.20	0.17	T	0.00	0.02	0.00	1.07	2.07	M2.50	13.77
1946	0.76	1.23	1.69	0.02	0.61	0.00	0.24	0.00	0.02	0.02	2.93	2.07	9.59
1947	0.69	1.45	2.34	0.53	0.17	0.36	0.00	0.00	T	1.84	0.85	0.51	8.74
1948	0.20	1.11	2.79	2.50	1.03	M0.16	0.03	0.00	T	0.46	0.34	2.71	11.33
1949	1.39	2.47	3.38	0.02	0.34	0.00	0.03	0.16	0.05	0.08	1.20	M0.90	10.02
1950	4.65	1.54	1.44	M0.85	M0.59	0.01	M0.00	0.00	0.08	M1.84	M5.95	4.95	21.90
1951	2.23	M1.81	M1.82	0.55	M0.35	M0.06	M0.00	M0.00	T	1.04	M3.01	6.07	16.94
1952	7.60	1.40	M2.36	2.20	M0.16	0.04	M0.00	0.00	M0.10	0.01	2.11	6.33	22.31
1953	2.07	0.05	M1.12	M1.42	0.61	0.59	M0.00	M0.15	0.00	M0.21	M1.33	M0.64	8.19
1954	2.19	2.27	M3.00	0.73	0.16	M0.27	0.00	0.00	M0.04	MT	1.68	M3.33	13.67
1955	M2.45	1.69	M0.38	M1.28	0.65	0.00	T	M0.01	0.01	M0.01	M1.31	10.15	17.94
1956	5.49	M1.15	0.14	1.92	M0.63	0.00	0.00	0.00	M0.63	0.79	0.03	0.48	11.26
1957	2.65	M2.23	1.30	1.14	M2.65	M0.04	0.00	0.00	M0.05	1.06	0.37	M1.62	13.11
1958	3.16	5.37	4.44	3.74	0.66	0.41	T	T	0.02	0.09	0.14	0.86	18.89
1959	2.45	3.59	0.29	0.35	T	0.00	0.00	0.07	1.89	0.00	T	0.75	9.39
1960	2.98	4.12	0.60	0.48	0.42	0.00	0.02	0.00	0.01	0.05	2.92	1.25	12.85
1961	2.08	1.04	1.92	1.03	0.69	0.19	T	0.13	0.16	0.15	2.24	0.82	10.45
1962	0.73	5.61	1.82	0.22	T	0.00	0.00	T	0.00	3.64	0.28	1.55	13.85
1963	1.40	4.50	2.60	3.47	M0.70	T	0.00	T	0.33	0.93	3.18	0.19	17.30
1964	2.37	0.08	1.57	0.21	0.48	0.32	T	0.12	0.04	0.85	2.44	4.91	13.39
1965	2.11	0.59	1.73	1.53	0.00	0.00	T	0.21	T	0.03	4.22	3.23	13.65
1966	1.05	1.17	0.17	0.33	0.10	0.12	0.17	0.00	0.11	0.00	3.43	2.35	9.00
1967	6.14	0.29	4.15	4.65	0.19	0.48	0.00	T	0.02	0.24	0.88	1.62	18.66
1968	3.93	0.90	2.40	0.43	0.15	0.00	0.00	T	T	0.43	2.48	3.04	13.76
1969	6.28	4.76	0.55	1.24	0.08	T	0.00	0.00	0.00	1.10	0.49	2.34	16.84
1970	5.38	1.18	1.42	0.40	0.07	0.32	0.00	0.00	0.00	0.41	5.24	5.27	19.69
1971	1.19	0.33	1.75	1.37	0.54	T	0.00	T	0.13	0.04	0.46	3.27	9.08
1972	0.90	0.79	0.14	0.64	0.00	0.04		0.00	0.58	2.98		2.22	8.29
1973	5.50			0.29	0.03	T	0.00	0.00	0.08	2.08	3.71	3.80	15.49
1974	1.50	0.71	2.69	1.62	0.00	0.00	0.00	0.00	0.00	0.50	0.66		7.68
1975	0.84	3.65	5.24	1.42	T	0.06	0.10	0.35	0.00	1.27	0.08	0.21	13.22
1976	0.30	1.46	0.48	0.39	0.00	0.18	0.00	0.91	0.95	0.50	0.50	0.73	6.40
1977	1.15	0.83	0.82	0.16	1.01	0.00	0.10	0.00	0.22	0.13		3.07	7.49
1978	5.44	2.95		2.49	0.01	T	0.00	0.00	0.04	0.00	2.16	0.58	13.67



1979	4.52	3.19	1.86	0.88	0.34	0.00	0.06	T	0.00	1.51	1.13	2.66	16.15
1980	4.16	4.24	1.36	1.32	0.48	0.00	0.70	0.00	0.00	0.04	0.28	1.18	13.76
1981	3.97	1.11	2.94	0.61	0.11	0.00	0.00	0.00	0.06	2.07	3.44	2.57	16.88
1982	5.29	2.16	5.58	1.50	0.00	0.28	0.00	M0.01	1.48	2.24	3.72	2.80	25.06
1983	6.28	5.56	6.14	3.51	0.21	0.00	0.00	0.50	1.02	0.27	5.44	3.44	32.37
1984	0.33	1.87	1.00	0.53	0.01	0.03	T	0.00	0.04	1.25	4.71	1.51	11.28
1985	0.48	1.25	2.62	0.32	0.07	0.22	T	0.03	0.13	0.89	2.69	1.97	10.67
1986	2.04	7.11	4.09	0.40	0.14	0.00	0.01	0.00	0.45	0.04	0.08	0.92	15.28
1987	2.73	3.47	2.30	0.16	0.09		0.00	0.00	0.00	0.87	1.40	2.30	13.32
1988	1.78	0.38	0.26	1.15	0.45	0.10	0.00	T	0.00	0.11	1.92	2.03	8.18
1989	0.81	0.95	2.94	0.88	0.08	0.10	0.00	T	1.33	1.13	1.02	0.10	9.34
1990	1.54	2.46	0.87	0.37	1.78	T	0.02	T	0.06	0.08	0.39	1.45	9.02
1991	0.31	2.20	5.87	0.34	0.35	0.08	0.00	0.21	0.04	1.65	0.31	1.19	12.55
1992	1.39	4.61	1.97	0.43	0.00	0.09	0.00	0.00	0.00	0.90	0.15	4.79	14.33
1993	6.41	4.53	2.91	0.63	0.51	0.30	0.00	0.00	T	0.57	2.00	1.81	19.67
1994	0.94	3.33	0.15	1.20	1.78	0.04	T	0.00	T	0.58		1.36	9.38
1995	6.64	0.33	6.66	1.02	0.92	0.70	T	0.00	0.00	0.00	0.01	5.37	21.65
1996	5.17	4.10	2.34	1.91	1.05	0.00	0.00	0.00	0.00	1.08	2.55	4.43	22.63
1997	5.81	0.15	0.06	0.15	0.29	0.17	0.00	0.42	0.00	0.28	4.23	1.95	13.51
1998	5.47	7.30	2.37	1.37	2.00	0.13	0.00	0.00	0.18	0.54	2.48	0.73	22.57
1999	3.23	3.33	1.67	0.99	0.08	0.01	0.00	0.03	0.04	0.15	1.26	0.25	11.04
2000	4.61	4.87	1.25	0.59	0.69	0.18	0.00	0.01	0.24		0.49	0.45	13.38
2001	1.92	2.89	1.22	1.80	0.00	0.12	0.00	0.00	0.09	0.37	1.92	5.09	15.42
2002	0.72	0.62	1.65	0.16	0.68	0.00	0.00	0.00	0.00	0.00	2.65	7.01	13.49
2003	0.66	1.31	1.07	3.09	0.95	0.00	T	0.29	T	0.02	2.02	3.57	12.98
2004	2.19	4.01	0.39	0.18	0.11	0.00	0.00	0.00	0.58	2.77	0.89	3.01	14.13
2005	2.81	3.55	3.41	1.53	1.03	0.05	T	0.00	0.25	0.17	0.65	5.40	18.85
2006	2.22	1.32	4.79	2.60	0.34	T	T	0.00	0.00	0.20	1.68	2.25	15.40
2007	0.52	3.92	0.33	0.44	0.11	0.00	T	0.00	0.21	1.12	0.71	2.05	9.41
2008	4.79	1.89	0.10	0.02	T	0.00	0.00	0.00	0.00	0.33	1.40	1.56	10.09
2009	1.34	3.31	2.29	0.23	0.41	0.11	T	0.00	0.31	2.79	0.21	2.02	13.02
2010	3.53	2.36	1.57	2.10	0.24	0.00	0.00	0.00	T	1.00	2.02	3.87	16.69
2011	0.78	2.69	4.10	0.22	0.46	1.07	0.00	0.00	T	1.06	0.93	0.04	11.35
2012	1.52	0.52	2.57	2.01	0.02	0.12	0.00	0.00	0.01	0.27	3.40	4.22	14.66



[illegible]

Notes: Data missing in any month have an "M" flag. A "T" indicates a trace of precipitation.

Data missing for all days in a month or year is blank.

Creation date: 2016-07-22







## **APPENDIX G**

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### Representative Photographs







## Appendix G. Representative photographs of the Iron Horse Trail Bridge Project Area and Wetlands



Photo 1. View south from Dublin Boulevard along the Iron Horse Regional Trail. Project area extends to fencing on east and west.



Photo 2. Seasonal wetland 1 (SW-1) located on the north side of the Iron Horse Trail, exhibiting water filled soil test pit. Vegetation consists of salt grass and annual hydrophytes consistent with seasonal wetland conditions. View is to the north toward Dublin Blvd.





Photo 3. Seasonal Wetland 2 (SW-2) located between Iron Horse Regional Trail levee and a concrete retaining wall associated with adjacent residential development. Water filled soil test pit and dense spike rush are observed at this location.



Photo 4. Seasonal wetland 3 (SW-3) located on the west side of the Iron Horse Regional Trail. Toe ditch exhibits standing water, algal matting, and emergent annual vegetation. Photo shows view to the south.





Photo 5. The northern end of ponding within SW-3 is shown in this photograph.



Photo 6. The northern extent (not inundated but saturated soils) within SW-3. Water flow through upland swale occurs to the north of this location to meet with Seasonal Wetland 4 (SW-4).





Photo 7. Seasonal Wetland 4 (SW-4) occurs in narrow ditch on left side of photograph. Culvert located at Dublin Boulevard intercepts water flows along this area.



Photo 8. Iron Horse Regional Trail to the north of Dublin Boulevard. Northern portion of project area covered in Scarlett Drive Wetland Delineation.



## **APPENDIX C**

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### Cultural Resources Technical Study







**Cultural Resources Technical Report  
Iron Horse Trail Project  
City of Dublin, Alameda County, California**

**PREPARED FOR:**

**Metis Environmental Group  
437 Alcatraz Ave.  
Oakland, CA 94609**

**PREPARED BY:**

**Roberta Thomas, M.A., RPA, Christina Alonso, M.A., RPA**



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**Project Number 18-188  
Report Number 18-520**

**October 2018**



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- Appendix A: Previously Recorded Cultural Resource Studies within a Half-Mile of the Project Area
- Appendix B: Native American Correspondence / Assembly Bill 52 Notification Letters
- Appendix C: Survey Photographs



## **Management Summary**

The City of Dublin's Iron Horse Trail Project (Project) involves the construction of a new overcrossing and pedestrian ramp spanning Dublin Boulevard in Dublin, California. PaleoWest Archaeology (PaleoWest) conducted a cultural resources assessment of the proposed Project area on behalf of Metis Environmental Group in compliance with the California Environmental Quality Act (CEQA). The City of Dublin is the Lead Agency for the purposes of CEQA.

A records search conducted on June 14, 2018 at the Northwest Information Center at Sonoma State University (NWIC). The records search indicated that no prehistoric or historical archaeological resources have been previously recorded within the Project area. A total of 29 resources, all historic-period buildings, are located outside of, but within a half-mile radius of the Project area. A total of 150 cultural resources studies have been conducted within a half-mile of the Project area; 10 of those studies intersect the Project area.

PaleoWest contacted the Native American Heritage Commission (NAHC) on June 15, 2018 with a request for information on sacred sites or tribal cultural resources within the Project area, and for a list of Native American tribal representatives with heritage ties to the area. The NAHC responded on June 25, 2018, stating that a Sacred Lands File (SLF) was completed with negative results but that "the absence of specific site information does not preclude the presence of cultural resources in any project area." PaleoWest contacted the recommended Native American representatives on July 12, 2018, requesting any pertinent cultural resource information they may have regarding the Project area. One round of follow-up phone calls was made on July 26, 2018 and, as a result of these outreach efforts cultural resources monitoring for the Project was recommended by a tribal representative. All communication with Native American representatives is tabulated in Appendix B.

PaleoWest conducted a pedestrian survey of the Project area on July 11, 2018. The survey failed to identify any cultural materials. Based on the results of the records search, communication with local Native American representatives, and the negative results of the pedestrian survey, the archaeological sensitivity of the Project area is considered to be low. Given the negative results of the current cultural resources assessment as well as the negative results for the overlapping Dublin Crossing Specific Plan EIR project area (located immediately adjacent to the current Project), PaleoWest recommends that no significant impacts to cultural resources will occur as a result of the current Project (no new or substantially more severe significant impacts to cultural resources with regard to the Dublin Crossing Specific Plan EIR). In addition, PaleoWest recommends that mitigation measure (MM) 3.4-2 and MM 3.4-4 from the Dublin Crossing Specific Plan EIR be applied for any unanticipated cultural resource discoveries or human remains associated with Project construction activities. These mitigation measures are outlined herein.



## **1.0 Introduction**

### ***1.1 Project Description***

The City of Dublin's Iron Horse Trail Project (Project) involves the construction of a grade-separated overcrossing at Dublin Boulevard, north of the Dublin/Pleasanton Bay Area Rapid Transit (BART) Station, along a section of the existing multi-use Iron Horse Trail. The overcrossing will span north to south over Dublin Boulevard and will provide an alternative to the existing at-grade crossing of the Iron Horse Trail where it meets Dublin Boulevard.

North of Dublin Boulevard, the overcrossing structure will be integrated into a community park constructed as a part of the Dublin Crossing Specific Plan project (RBF 2013). The new overcrossing structure would gradually transition to at-grade conditions before reconnecting with the Iron Horse Trail north of Dublin Boulevard. South of Dublin Boulevard, the overcrossing would touch down within the existing Iron Horse Trail right-of-way and would include a graduated ramp for both pedestrians and bicyclists to access the overcrossing. The northern portion of the Project area lies within the Dublin Crossing Specific Plan study area and, as such, was previously assessed for cultural resources as part of the Dublin Crossing Specific Plan Environmental Impact Report (EIR) (RBF 2013).

This Cultural Resources Technical Report was prepared in compliance with the California Environmental Quality Act (CEQA) Sections 15064.5 and 15126.4, as a means of evaluating the potential impacts cultural resources.

### ***1.2 Project Location***

The Project area is located in the city of Dublin within the Amador Valley, east of the Pleasanton Ridge, in Alameda County, California (Figure 1). The Project area follows the existing Iron Horse Trail where it crosses Dublin Boulevard (Figure 2). Specifically, the Project area is located to the east of Highway 680, and directly north of Highway 580 in Section 6 of Township 3 South, Range 1 East as depicted on the 1980 Dublin, California 7.5-minute USGS topographic quadrangle map (Figure 3). The elevation of the Project area is approximately 336 feet above mean sea level.

## **2.0 Regulatory Framework**

The California Register of Historic Resources (CRHR) is the official state-level list of properties, structures, districts, and objects significant at the local, state, or national level. CRHR-eligible properties are considered to be historical resources under CEQA and must have significance under at least one of the four criteria presented below. A property may be considered a historic resource if it:

- (1) is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
- (2) is associated with the lives of persons important in our past;

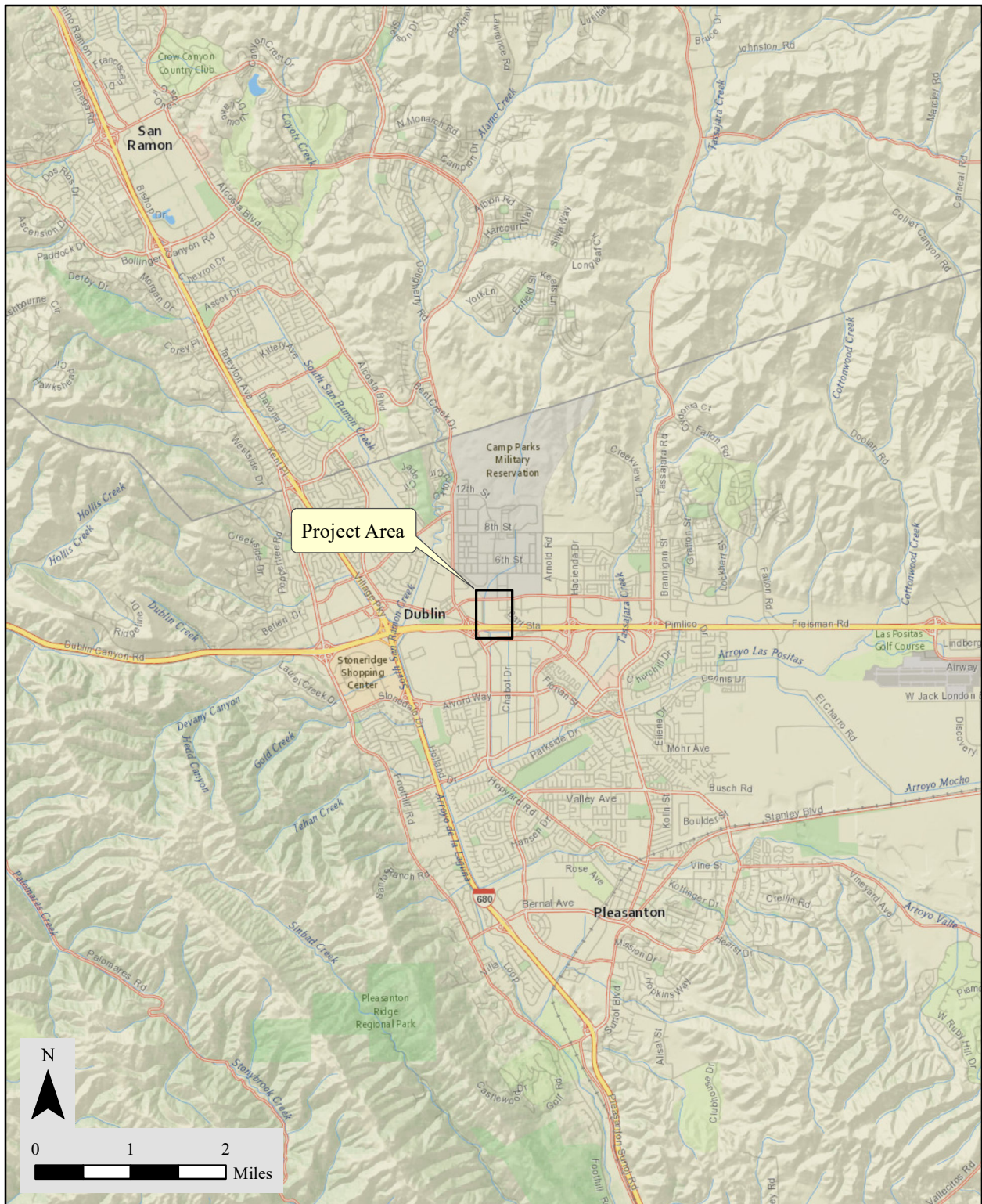




## Project Vicinity Map

Figure 1  
Metis Environmental Group  
Iron Horse Trail Project  
Alameda County, CA

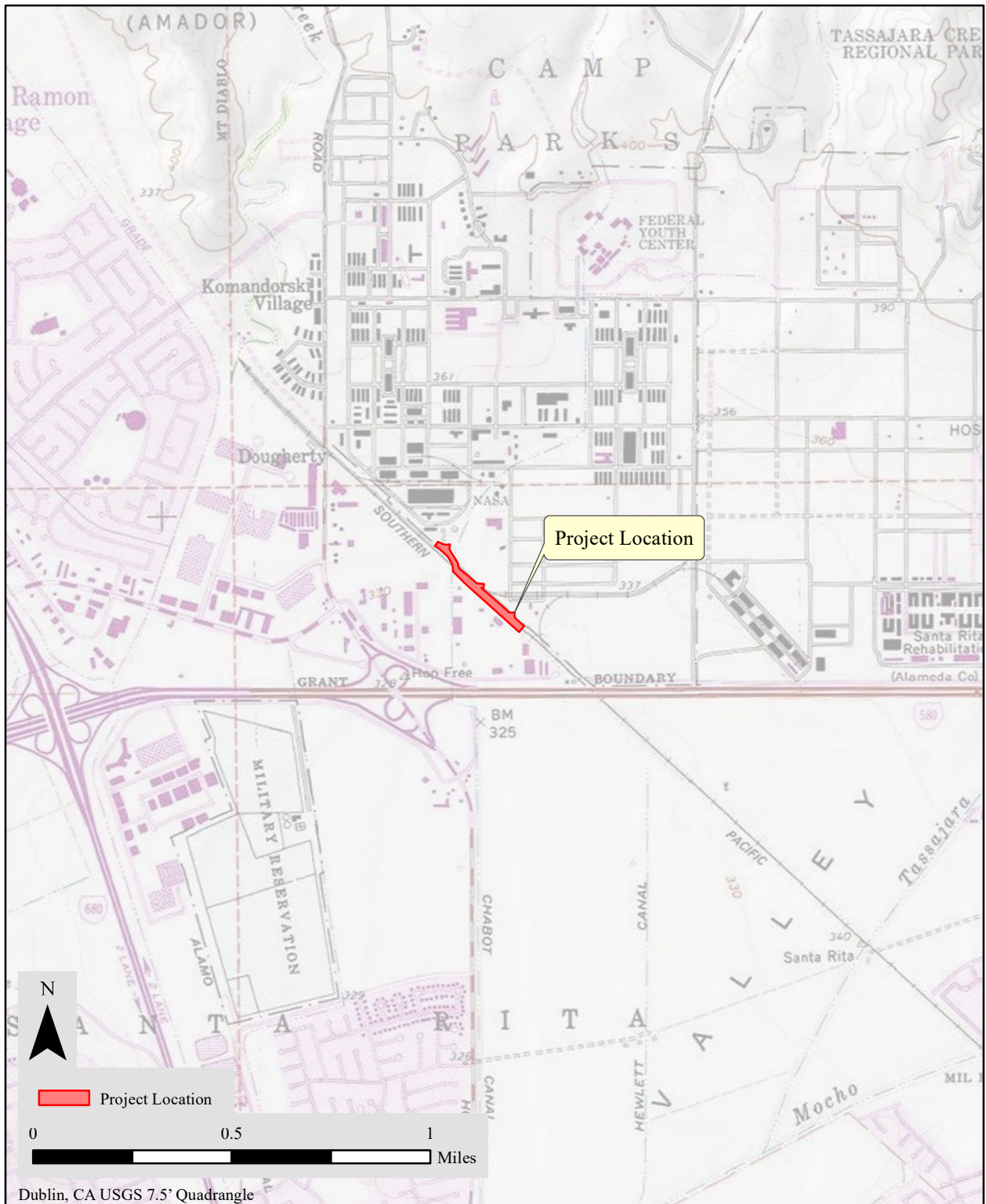




Project Area Map

Figure 2  
Metis Environmental Group  
Iron Horse Trail Project  
Alameda County, CA





Project Location Map

Figure 3  
Metis Environmental Group  
Iron Horse Trail Project  
Alameda County, CA



- (3) 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
- (4) has yielded, or may be likely to yield, information important in prehistory or history.

In order to meet one or more of these criteria, a cultural resource must possess integrity to qualify for listing in the CRHR. Integrity is generally evaluated with reference to qualities including location, design, materials, workmanship, setting, feeling, and association. A potentially eligible site must retain the integrity of the values that would make it significant. Typically, integrity is indicated by evidence of the preservation of the contextual association of artifacts, ecofacts, and features within the archaeological matrix (Criterion 4) or the retention of the features that maintain contextual association with historical developments or personages that render them significant (Criteria 1, 2, or 3). Evidence of the preservation of this context is typically determined by stratigraphic analysis and analysis of diagnostic artifacts and other temporal data (e.g., obsidian hydration, radiocarbon assay) to ascertain depositional integrity or by the level of preservation of historic and architectural features that associate a property with significant events, personages, or styles.

Integrity refers both to the authenticity of a property's historic identity, as shown by the survival of physical characteristics that existed during its historic period and to the ability of the property to convey its significance. This is often not an all-or-nothing scenario (determinations can be subjective); however, the final judgment must be based on the relationship between a property's features and its significance.

Section 15064.5 of the CEQA Guidelines indicates a project may have a significant environmental effect if it causes "substantial adverse change" in the significance of an "historical resource" or a "unique archaeological resource" as defined or referenced in CEQA Guidelines Section 15064.5[b, c] (revised October 26, 1998). Such changes include "physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired" (CEQA Guidelines 1998 Section 15064.5 [b]).

### **3.0 Setting**

#### ***3.1 Environmental Setting***

Pleasanton Ridge is a component of the Central Coast Ranges geomorphic province. Within the Central Coast Ranges, non-marine sedimentary rocks, which were deposited during the post-Miocene (within the last five million years), compose the lower lying foothills. Older deposits of marine sedimentary, metamorphic, and volcanic rock with igneous rock intrusions underlie the higher ridges. The Project is located on an alluvial plain that has been subject to episodic flooding, erosion from the surrounding hillsides, and tectonic activity (Wiberg et al. 1996). Alamo Creek is located approximately 1,200 meters to the northwest. The hills to the



north of the Project area consist predominantly of Clear Lake clay (90%), ranging in slope from 0-2 percent (USDA 2017). Additional sediments in the area consist of unnamed alluvial flats, Campbell and Sunnyvale soil series.

The flora and fauna of the area in recent times has been disrupted by many modern activities but continues to thrive in the undeveloped periphery. A combination of woodland and open grassland species can be found. Flora include valley oak (*Quercus lobata*), coast live oak (*Quercus agrifolia*), and a variety of introduced annual grasses. Fauna include Mule Deer (*Odocoileus hemionus*), coyote (*Canis latrans*), skunk (*Mephitis mephitis*), cottontail rabbit (*Sylvilagus sp.*), squirrel (*Sciurus sp.*), quail (*Lophortyx californicus*), hawk (*Accipitridae*) and various rodents (Wiberg et al. 1996).

### **3.2 Prehistoric Context**

Research into local prehistoric cultures began in the early 20th century with the work of N. C. Nelson of the University of California at Berkeley, who conducted the first intensive archaeological surveys of the San Francisco Bay region (Nelson 1909). The 425 shellmounds he documented along the bayshore showed that intensive use of shellfish -- a subsistence strategy reflected in both coastal and bayshore middens -- indicated a general economic unity in the region during prehistoric times (Moratto 1984).

In 1911, Nelson supervised excavations at CA-SFR-7 (the Crocker mound) near Hunter's Point. The site was subsequently dated from 1050 B.C. to A.D. 450. L. L. Loud identified archaeological components from this same period in Santa Clara County in 1911 while excavating at CA-SCL-1 (the Ponce, Mayfield, or Castro Mound site). R. J. Drake recognized the same components in San Mateo County in 1941 and 1942 at CA-SMA-23 (Mills Estate) in San Bruno (Moratto 1984:233).

This work provided the impetus for investigation into the prehistory of central California in the 1920s. J. A. Barr and E. J. Dawson excavated a number of sites and amassed substantial collections in the area from 1893 to the 1930s. Based on artifact comparisons, three distinct cultural traditions were identified, Early, Middle, and Late (Ragir 1972; Schenck and Dawson 1929). In the 1930s J. Lillard and W. Purves of Sacramento Junior College were conducting excavations throughout the Sacramento Delta area. By seriating artifacts and mortuary traditions they identified a three-phase sequence similar to Barr's and Dawson's, including Early, Intermediate, and Recent cultures (Lillard and Purves 1936). This scheme went through several permutations including Early, Transitional, and Late periods (Lillard et al. 1939), and Early, Middle, and Late Horizons (Heizer and Fenenga 1939). In 1948 and again in 1954, Richard Beardsley refined this system and extended it to include the region of San Francisco Bay. The result is referred to as the Central California Taxonomic System (CCTS) (Beardsley



1948, 1954; Moratto 1984). Subsequently the CCTS system of Early, Middle, and Late Horizons was applied widely to site dating and taxonomy throughout central California.

As more data were acquired through continued fieldwork, local exceptions to the CCTS were discovered. Coupled with the accumulation of these exceptions, the development of radiocarbon dating, introduced in the 1950s, and of obsidian hydration in the 1970s, opened up the possibility of dating deposits more accurately. Given the expanse of central California and the complex nature of cultural change over space and time, this single system is limited to providing a general framework for assigning newly found materials to existing cultural chronologies (Hughes 1994). Even though much of the subsequent archaeological investigation in the Central Valley has focused on local variations of the CCTS, the tripartite system of cultural history of the CCTS has been generally associated with adaptive patterns known as the Windmill, Berkeley, and Augustine.

Windmill Pattern sites are most often found in the Early period (ca. 6000 to 500 B.C.) but are known to extend into the Middle period, possibly as late as A.D. 500 in the Stockton Area (Moratto 1984). Some scholars have suggested that Windmill Pattern sites are associated with an influx of people from outside of California who introduced subsistence strategies adapted for a riverine-wetlands environment (Moratto 1984), and that the subsequent Berkeley Pattern developed in the San Francisco Bay region and expanded outward to the Central Valley, eventually replacing the Windmill Pattern. Windmill assemblages have been found to overlap in time with those of the Berkeley Pattern (Moratto 1984).

Windmill Pattern sites are often situated in riverine, marshland, or valley floor settings, as well as atop small knolls above prehistoric seasonal floodplains, locations that provide a wide variety of plant and animal resources. Most Windmill Pattern sites have contained burials with remains that are extended ventrally, oriented to the west, and that contain copious amounts of mortuary artifacts. These artifacts often include large projectile points and a variety of fishing gear including net weights, bone hooks, and spear points. The faunal remains indicate that the inhabitants hunted a range of large and small mammals. Stone mortars and grinding stones for seed and nut processing are common finds. Other artifacts -- such as charmstones, ochre, quartz crystals, Olivella shell beads and Haliotis shell ornaments -- suggest the practice of ceremonialism and trade.

The Berkeley Pattern appears at around 1550 B.C. in the San Francisco Bay region and expanded outward to the Central Valley after about 500 B.C. This pattern shares some attributes with the Windmill Pattern at the beginning of the sequence and with the Augustine Pattern (Late period) at the end. Berkeley Pattern sites are much more common and well documented, and therefore better understood than Windmill Pattern sites. These sites are scattered in more diverse environmental settings, but riverine settings are prevalent.

Deeply stratified midden deposits, which developed over generations of occupation, are common to Berkeley Pattern sites. These middens contain numerous milling and grinding stones for food preparation. The typical body position for burials is tightly flexed with no



particular preference for orientation. Associated grave goods are much less frequent than with either the Windmill or the Augustine Pattern. Projectile points in this pattern become progressively smaller and lighter over time, culminating in the introduction of bow-and-arrow technology at the beginning of the Late period. Wiberg (1997) claims that large obsidian lanceolate projectile points or blades are unique to the Berkeley Pattern. Olivella shell bead types include Saddle (F) and Saucer (G) types. In addition, Halotis pendants and ornaments are present. Slate pendants, steatite beads, stone tubes, ear ornaments, and a general reduction of mortuary goods are associated with Berkeley Pattern sites (Fredrickson 1973; Moratto 1984).

The Augustine Pattern characterizes the Late period, which has been dated from about A.D. 900 to about 1750. It is typified by intensive fishing, hunting, and gathering (especially acorns), a large population increase, expanded trade and exchange networks, increased ceremonialism, and the practice of cremation in addition to flexed burials. Certain artifacts are also distinctive in this pattern: bone awls used in basketry, small notched and serrated projectile points that are indicative of bow-and-arrow usage, occasional pottery, clay effigies, bone whistles, and stone pipes. Beginning in the latter half of the 18th century, the Augustine Pattern was disrupted by the Spanish explorers and the mission system (Moratto 1984).

### ***3.3 Local Amador Valley Chronology***

Research into the cultural history of the Amador-Livermore Valley indicates that prehistoric occupation of the area began approximately 5,000 years ago during the Early period.

The Meganos Aspect is a cultural pattern that existed sometime between A.D. 450 and 800 and has been documented at various sites in the Amador Valley, overlapping with, and differing from, the Berkeley Pattern occupations that range from 210 B.C. through A.D. 1000 (Wiberg 1997). Heizer first identified the Meganos Aspect in 1938 when he noted an “atypical horizon” at CA-CCO-141 (the Orowood Site) characterized by mortuary practices that were dominated by ventrally extended burials (Bennyhoff 1994b). In 1968, based on the findings at 17 similar sites, Bennyhoff defined the Meganos Aspect as a mixing of Windmill and Berkeley Pattern traits that was centered in the San Joaquin Valley but spread into parts of the Bay Area during the Late and Terminal phases of the Middle period (Bennyhoff 1994a, 1994b). The classic expression of the Meganos Aspect as defined by Bennyhoff (1994a, 1994b) included non-midden burials that lacked specific orientation of corpse placement, though he noted a westerly trend that he felt was reminiscent of Windmill burials. In addition, the rarity of grave goods in Meganos burials resembles the Berkeley Pattern. Bennyhoff’s characteristic Meganos assemblage is marked by mortar and pestle use (acorn economy). Leaf-shaped obsidian dart points, spear points and knives occur, but chipped stone is relatively rare. Meganos burials are associated with Olivella Saddle (F) and Saucer (G) beads, Halotis ornaments, quartz crystals, and a few charmstones (Wiberg 1997). The bone industry was less developed than the contemporaneous Berkeley Pattern and mainly included awls, fish spears, and hairpins. With



the discovery of the Meganos Aspect at sites investigated after 1968, Bennyhoff came to recognize that there was more variability within the Meganos culture than he had originally identified. This included interment within habitation areas, more substantial quantities of grave goods, pre-interment fires, and a number of unique artifact forms. Meganos cemeteries in the Stockton area are quite impoverished, while those to the west and south tend to have more associated offerings.

Mission records and ethnographies identify the Native Americans living in the Pleasanton area at the time of European contact in the latter half of the 18th century as members of various groups that are now referred to collectively as Ohlone. On the basis of linguistic evidence, it has been suggested that the ancestors of the Ohlone arrived in the San Francisco Bay area about A.D. 500, having moved south and west from the Sacramento-San Joaquin Delta region. Linguistic evidence has been interpreted to indicate that prior to about A.D. 500, speakers of the Hokan language occupied territories that included the Project area until the ancestral Ohlone displaced them (Levy 1978). This cultural replacement may correspond to the transition in archaeological material culture from the Berkeley to the Augustine Pattern sometime between A.D. 500 and 1000.

### ***3.4 Ethnographic Context***

At the time of initial contact with European explorers (1772), the Project area was occupied by the Ohlone, and more specifically an Ohlone triblet, known as Pelen, of 300 to 500 who inhabited semi-permanent villages and seasonal campsites (Kroeber 1932; Levy 1978). Although ethnographic information about the Pelen is sparse, they may have shared the resources of the former Willow Marsh, located in the low-lying area between Dublin and Pleasanton, with the nearby Seunen and Souyen Ohlone tribal groups. This marsh was an important source for seasonal foods such as migratory waterfowl and shorebirds, which provided protein-rich supplements to the typical aboriginal diet of greens, roots and bulbs, seeds, and acorns (Levy 1978).

The group known as the Ohlone subdivided into smaller village complexes or tribal groups. These groups were independent political entities, each occupying specific territories defined by physiographic features. Each group controlled access to the natural resources of its territory. Although each tribal group had one or more permanent villages, their territory contained numerous smaller campsites used as needed during a seasonal round of resource exploitation.

Extended families lived in domed structures thatched with tule, grass, wild alfalfa, ferns or carrizo (Levy 1978). Semi-subterranean sweathouses were built in pits excavated in stream banks and covered with a structure against the bank. The tule raft, propelled by double-bladed paddles similar to those used in the Santa Barbara Island region, were used to navigate across San Francisco Bay (Kroeber 1970).

Warfare was quite common in Ohlone culture and usually centered around territorial disputes (Levy 1978). Music, ritual and myth were extensive in Costanoan life. Song was employed in



the telling of myths, in hunting and courtship rituals, and in other ceremonial activities. Musical instruments were typically whistles made of bird bone, and flutes and rattles made of wood from the alder.

Mussels were an important staple in the Ohlone diet as were acorns of the coast live oak, valley oak, tanbark oak and California black oak. Seeds and berries, roots, grasses, and the meat of deer, elk, grizzly, sea lion, rabbit, and squirrel also contributed to the Ohlone diet. Careful management of the land through controlled burning served to insure a plentiful and reliable source of all these foods (Kroeber 1970; Levy 1978).

The arrival of the Spanish led to the rapid demise of native California populations. Diseases, declining birth rates, and the effects of the mission system served to eradicate the aboriginal life ways (which are currently experiencing resurgence among Ohlone descendants). Brought into the missions, the surviving Ohlone along with former neighboring groups of Esselen, Yokuts, and Miwok were transformed from hunters and gatherers into agricultural laborers (Cambra et al. 1996; Levy 1978; Shoup and Milliken 1999). With abandonment of the mission system and Mexican takeover in the 1840s, numerous ranchos were established. Generally, the few Ohlone who remained were then forced, by necessity, to work on the ranchos.

### ***3.5 Historic Background***

#### **Spanish and Mexican Periods**

Shortly after the Fages expedition, missions were founded at San Francisco and Santa Clara. Their presence led to additional exploration of the area and Native American recruiting forays into the Amador-Livermore Valley. It was not until the founding of Mission San Jose in 1797, however, that people other than native Californians began to use the Project area extensively, as the region provided primary grazing land for Mission San Jose. The mission itself had a lasting effect on the surrounding Ohlone people, and between 1797 and 1810 the mission priests baptized 1,494 people, many of whom came from the areas immediately surrounding the mission settlement. By the end of that period 1,185 people had died at Mission San Jose (Milliken 1995).

As the mission herds grew, Native American vaqueros tended to the cattle, sheep, and horses that grazed the abundant grasses of the valleys to the north of the mission. The trail through Mission Pass, along the Sunol Valley, and east through Pleasanton to the San Joaquin Valley became well-worn. Increasingly, soldiers and mission neophytes were sent along this route to obtain new converts and punish those that had left the mission to return to their traditional homes.

#### **Early American Period**

The transition to American control that began with the signing of the Treaty of Guadalupe Hidalgo in 1848 was accelerated with the discovery of gold in that same year. The influx of miners drawn west in search of wealth quickly changed the population dynamics of the area



and ensured that California would remain a part of the United States. Initially, the increased demand for products that ranchers were able to provide generated great profits for Mexican landholders. Along with increased demand, came increased settlement, and American interests soon began to threaten the land grants and livelihoods of established Mexican-heritage residents. A letter written in 1860 by Samuel B. Martin to John Kottinger, a son-in-law of Juan Pablo Bernal who lived in Pleasanton, confirms that the number of sheep brought into the area by settlers, most of them squatters, had grazed the pasture land so close that cattle throughout the area were suffering from lack of food. The drought of 1864 further challenged many families' ability to pay the recently imposed property tax, while profits from cattle were rapidly falling (Hagemann 1965).

In addition, under the American government it became necessary to produce documentary proof of Mexican titles in order for the Mexican grantees to claim their ranchos under a United States patent. Kottinger acted as an attorney and prepared the necessary documents for the United States Land Commissioner and the United States District Court at San Francisco on behalf of the Bernal family. In 1863 the United States government patented their grant to three of the original four grantees (Hagemann 1965).

In 1853, lands including the modern-day towns of Dublin, Pleasanton, and Livermore, as well as part of the Ohlone Regional Wilderness to the south were incorporated into the Murray Township (Hagemann 1965). This township, comprising the eastern half of Alameda County, was named after Michael Murray, who settled in Dublin around 1850.

As more land came under cultivation and the population continued to grow in the second half of the 1800s, Native Americans in the region found it increasingly difficult to find work and provide for themselves and their families. Recent immigrants were performing the labor the Native Americans had once performed for local farmers and ranchers, and the grasslands that had provided much of their traditional sustenance were now under the plow. At least 1,000 former mission Native Americans had lived in the vicinity of Mission San Jose in the early 1840s. By the early 1860s many of the remaining Native Americans from Mission San Jose and Mission Santa Clara gathered at a refuge called Alisal. This refuge was located on the ranch of Agostin Bernal, within modern-day Pleasanton, near the northwestern quadrant of the intersection of Highway 680 and Sunol Boulevard. As stated by Field et al. (1992), "The Alisal rancheria was unquestionably the most prominent and important community of Costañoan descendants from the 1860s onward and well into the 20th century and constitutes the first post-conquest Indian revitalization in the Bay Area." Small groups of other missionized Native Americans also settled at smaller rancherias in Niles and Sunol.

Alisal was a place where surviving Native Americans from all over the Bay Area and central California came together. A new cultural vitality emerged as Costañoan, Miwok, and Yokuts peoples shared aspects of their traditional cultures. Cultural practices such as the Ghost Dance were embraced by the Native Americans at Alisal and showed a distinct blend of the old and new. Those who taught the Ghost Dance believed it would help drive white men from their



land. The men and women of Alisal combined the Ghost Dance with the Kuksu Dance, the World Renewal Ceremonies, and other important traditions. The combination proved to be very powerful for the Native Americans and became an important part of the revitalization of indigenous culture (Field et al. 1992).

#### Site Specific History

During World War II, Camp Parks, located 0.3 miles north of the Project area, was commissioned by the Navy to house 10,000 servicemen (City of Dublin 2017). Camp Parks was leased and used as the Santa Rita Jail, an Air Force training center, in addition to an Army training center. In 1980, Camp Parks was officially designated as a mobilization and training center by the Army and has been a semi-active installation since.

Few tract homes were present in the Amador Livermore area until 1960 when the Volk-McLain Company began to work on San Ramon Village which would provide several thousand moderately-priced homes in the area. The effort to incorporate Dublin in 1967 was denied by the Alameda County Local Agency Formation Commission. The County policy was to have only one city in the east valley. In response, a subsequent referendum on annexation of Dublin to Pleasanton also failed. Incorporation of Dublin was finally achieved in November of 1981. At this point, the City of Dublin was 3.54 square miles, with 4,428 housing units and an estimated population of 13,700.

By 1986, Camp Parks was annexed into Dublin and the City grew by 4.24 square miles. Between 1995 and 2010, the City expanded to 14.62 square miles, with 15,782 housing units and an estimated population of 40,262.

The Project area is currently a paved trail atop the historic Southern Pacific Railroad alignment. While there are no remnants of the railroad still present, portions of the tracks still exist to the northwest of the Project area.

#### **4.0 Results of the Records Search**

A literature review and records search was conducted by Patrick Allen, Staff Archaeologist, on June 14, 2018 at the Northwest Information Center (NWIC) housed at Sonoma State University, Rohnert Park (IC File Number 17-3021). The records search area included the Project area as well as an additional half-mile radius. The purpose of the records search was to identify any known cultural resources within the immediate vicinity of the Project area. The records search also included a review of the Office of Historic Preservation (OHP) Archaeological Determination of Eligibility and the OHP Directory of Historic Properties Data File.

The records search indicated that no prehistoric or historical archaeological resources have been previously recorded within or within a half-mile radius of the Project area. A total of 29 historical built-environment resources have been previously recorded within a half-mile radius



of the Project area; however, none of these resources are located within the Project area (Table 1). These resources include a section of the Southern Pacific Railroad, and buildings and structures associated with the Parks Reserve Forces Training Area, commonly known as Camp Parks. The section of the Southern Pacific Railroad, P-01-001783, is located less than one tenth of a mile northwest of the Project area, it no longer extends through the Project area. The records search also indicated that a total of 150 cultural resource studies have been conducted within a half-mile radius of the Project area (see full list in Appendix A). Of these 150 studies, 10 intersect or include portions of the Project area (Table 2).

**Table 1**  
**Previously Recorded Historic Resources within a Half-Mile of the Project Area**

<b>Primary No. /Trinomial</b>	<b>Age</b>	<b>Type</b>	<b>Description</b>	<b>Eligibility Recommendation</b>
P-01-001783/ CA-ALA- 000623H	Historic	Structure	Portion of the Southern Pacific Railroad (recorded in segments)	Not recommended eligible for either CRHR or NRHP (2017)
P-01-010333	Historic	Building	Camp Parks Sign	3S
P-01-010422	Historic	Building	Building 636 (Camp Parks)	6Y
P-01-010468	Historic	Building	Building 610 (Camp Parks)	6Y
P-01-010469	Historic	Building	Building 611 (Camp Parks)	6Y
P-01-010470	Historic	Building	Building 620 (Camp Parks)	6Y
P-01-010471	Historic	Building	Building 796 (Camp Parks)	6Y
P-01-010472	Historic	Building	Building 792 (Camp Parks)	6Y
P-01-010475	Historic	Building/Structure	Drainage System and Building 740 (Camp Parks)	6Y
P-01-010479	Historic	Building	Buildings 284, 860, 860A, 861, 880, 881 Health Clinic and Regional Medical Training site (Camp Parks)	6Y
P-01-010480	Historic	Building	Buildings 132, 133, 309, 334, 341, 495, 511, 793, 797, 798, and 862 Miscellaneous Storage Facilities (Camp Parks)	6Y
P-01-011868	Historic	Building	Buildings 131 (Camp Parks)	6Y
P-01-011869	Historic	Building	Building 141 (Camp Parks)	6Y
P-01-011870	Historic	Building	Buildings 162 (Camp Parks)	6Y
P-01-011871	Historic	Building	Building 171 (Camp Parks)	6Y
P-01-011872	Historic	Building	Building 180 (Camp Parks)	6Y
P-01-011873	Historic	Building	Building 210 (Camp Parks)	6Y
P-01-011874	Historic	Building	Building 212 (Camp Parks)	6Y
P-01-011906	Historic	Building	Building 637 (Camp Parks)	6Y
P-01-011908	Historic	Building	Building 730 (Camp Parks)	6Y
P-01-011909	Historic	Building	Building 730A (Camp Parks)	6Y
P-01-011910	Historic	Building	Building 730B (Camp Parks)	6Y
P-01-011911	Historic	Building	Building 730C (Camp Parks)	6Y
P-01-011912	Historic	Building	Building 731 (Camp Parks)	6Y
P-01-011913	Historic	Building	Building 732 (Camp Parks)	6Y
P-01-011914	Historic	Building	Building 790 (Camp Parks)	6Y



<b>Primary No. /Trinomial</b>	<b>Age</b>	<b>Type</b>	<b>Description</b>	<b>Eligibility Recommendation</b>
P-01-011915	Historic	Building	Building 791 (Camp Parks)	6Y
P-01-011916	Historic	Building	Building 800 (Camp Parks)	6Y
P-01-011917	Historic	Building	Building 801 (Camp Parks)	6Y

**Table 2**  
**Previous Cultural Resource Studies within the Project Area**

<b>Report No.</b>	<b>Year</b>	<b>Author(s)</b>	<b>Title</b>
S-000727	1977	Miley Holman and David Chavez	An Archaeological Reconnaissance of Two New Proposed Waste Water Pipeline Routes, Livermore-Amador Valley Water Management Agency, Alameda County, California
S-016307	1994	Alison MacDougall	Cultural Resource Investigation of PG&E's Proposed Willow Pass Substation Addition, Willow Pass Tap, East Dublin BART Dedicated Substation, and Castro Valley Substation Addition, Contra Costa and Alameda Counties, California
S-017993	1995	Brian Hatoff, Barb Voss, Sharon Waetcher, Stephen Wee, Vance Bente	Cultural Resources Inventory Report for the Proposed Mojave Northward Expansion Project
S-025313	2002	Rand Herbert, Bryan Larson, Jessica Herrick, Amanda Blosser, Andrew Walters, and Eric Johnson	Final Report: National Register of Historic Places, Inventory and Evaluation of Previously Unevaluated World War II and Cold War Era Buildings, Parks Reserve Forces Training Area, Alameda and Contra Costa Counties, California
S-026071	1998	Shahira Ashkar and Dana McGowan	Parks Reserve Forces Training Area, Built Environment Inventory and Evaluation
S-026096	1981	Earth Metrics Incorporated	Historic Property Survey Report for the Reactivation and Development Plans, Camp Parks, Pleasanton, CA
S-028826	2001	Damon Mark Haydu	A Cultural Resources Study of Portions of the Training Area and Cantonment Area Within Camp Parks (PRFTA), Alameda and Contra Costa Counties, California
S-028835	2004	Jack Meyer and Graham Dalldorf	Geoarchaeological Investigation in the Parks Reserve Forces Training Area, Alameda and Contra Costa Counties, California.
S-029314	2004	Christopher Caputo	Archaeological Survey Report for Portions of the Training Area, Parks RFTA, Alameda and Contra Costa Counties, California.
S-023385	2000	Colin I. Busby and Stuart A. Guedon	Cultural Resources Assessment for an Extension of the Iron Horse Trail Between Dougherty Road and Dublin BART Station, City of Dublin, Alameda County (letter report)

PaleoWest staff also reviewed the OHP directory for the Project area. There are no resources listed on the OHP directory within the Project area. Numerous industrial buildings and structures associated with National Aeronautics and Space Administration (NASA) and the



Parks Reserve Forces Training Area, located less than one tenth of a mile from the Project area, are listed in the OHP directory.

#### Historic Topographic Map and Aerial Review

In addition to the records search, PaleoWest completed a review of the historical topographic maps and historic aerials that depict the Project area. The Fairchild Aerial Surveys 1938 aerials (Flight C-5750) depict the Project area in an undeveloped region with the Southern Pacific Railroad running northwest to southeast. The 1906 United States Geologic Survey (USGS) Pleasanton 15-minute quadrangle map also depicts the Project area as undeveloped with only a few roads in the general vicinity. The 1953 USGS Dublin 7.5-minute map shows the Project area atop the existing Southern Pacific Railroad line and crossing the convergence of two unnamed seasonal drainages. The 1953 Dublin map also depicts numerous rectangular industrial style buildings to the north/northwest of the Project area. These buildings are likely portions of the Parks Reserve Forces Training Area which was commissioned in January of 1943 (<http://www.usar.army.mil/Commands/US-Army-Reserve-Command-USARC/Camp-Parks-Main/Camp-Parks/>). A review of the 1950 United States Department of Agriculture Stabilization and Conservation Service survey for Flight BUT-1950 shows the Project area south of Camp Parks with small buildings located in between the northern edge of Highway 580 and the diagonal tracks of the Southern Pacific Railroad. The 1961 Dublin 7.5-minute map shows the Project area intersecting the Southern Pacific Railroad line and crossing an unnamed seasonal drainage. In addition, the 1961 Dublin quadrangle illustrates numerous buildings associated with NASA located to the northwest of the Project area. The Cartwright Aerial Survey from 1965 (Flight CAS-65-130) depicts the Project area to the southeast of Camp Parks with the parcels directly surrounding the Project area still mostly undeveloped. The 1980 photo revised Dublin topographic quadrangle map indicates that while the majority of the Dublin area has been developed by 1980, the Project area remained undeveloped.

#### ***4.1 Native American Coordination***

PaleoWest contacted the Native American Heritage Commission (NAHC) for a review of the Sacred Lands File (SLF) on June 15, 2018. The objective of the SLF search was to determine if the NAHC had any knowledge of Native American cultural resources (e.g., traditional use or gathering area, place of religious or sacred activity, etc.) within the immediate vicinity of the Project area. The NAHC responded on June 25, 2018, stating that the SLF was completed with negative results (Appendix B). However, the NAHC did state that the absence of specific site information in the SLF does not indicate the absence of Native American cultural resources. As such, the NAHC recommended that six Native American individuals and/or tribal groups be contacted to elicit information regarding cultural resource issues related to the Project. Initial scoping letters were sent by email on July 12, 2018 to all six recommended individuals. As no written response had been received, follow up phone calls were placed to each individual on July 26, 2018. Ms. Perez, Northern Valley Yokut, indicated that typically railroad tracks follow traditional Native trails and as such she recommends a Native American



monitor be present during ground disturbing activities. She also requested a copy of the final report. Ms. Sayers, Indian Canyon Mutsun Band of Costanoan, indicated she has no knowledge of the area or its potential sensitivity. No other responses were received as a result of the outreach efforts. Subsequently, messages and follow up emails describing the Project were sent to the contacts who were unable to be reached.

## **5.0 Dublin Crossing EIR Findings**

A portion of the current Iron Horse Trail Project area overlaps with land previously assessed in the Dublin Crossings Specific Plan EIR (2013). The Dublin Crossings Specific Plan EIR identified 12 cultural resources within the EIR's project area. These resources were all components of Camp Parks and as such were evaluated using the National Register of Historic Places (NRHP) criteria. Only one of the resources, the Camp Parks entrance sign (P-01-010333), was determined to be eligible for listing on the NRHP by the State Historical Preservation Office (SHPO) (October 26, 1999). As the resource was determined eligible for listing on the NRHP, it is now also recommended as eligible for listing on the CRHR. None of these resources are located within the portion of the Iron Horse Trail Project area that overlaps with the project area for the Dublin Crossing Specific Plan EIR.

The SLF search conducted for the Dublin Crossing Specific Plan EIR also failed to indicate the presence of Native American cultural resources within the Project area. An amendment to the City of Dublin's General Plan was necessary for land use purposes associated with the Dublin Crossing Specific Plan. As such, Senate Bill (SB)18 consultation was conducted and likewise failed to provide any additional information regarding cultural resources within the Project area.

Subsequently, the records search and the pedestrian field survey conducted for the Dublin Crossing Specific Plan EIR failed to identify any new archaeological or historic deposits within the study area. As a result of the cultural resource assessment, two cultural resource mitigation measures (MM) were proposed for the Dublin Crossing Specific Plan EIR to mitigate significant impacts to unknown archaeological resources during construction activities. These MM are outlined below. While the Dublin Crossing Specific Plan EIR indicated that Impact 3.4-1 could potentially affect the NRHP eligible Camp Park Sign, this resource was located outside of the Project area and therefore no mitigation measure was needed.

Mitigation Measure 3.4-2, Halt Work/Archaeological Evaluation/Site-Specific Mitigation, for unanticipated cultural resources.

Mitigation Measure 3.4-4, Halt Work/Coroner's Evaluation/Native American Heritage Consultant/Compliance with Most Likely Descended, for unanticipated discoveries and human remains.



## **6.0 Methodology and Results of Field Survey of the Iron Horse Trail Project**

### ***6.1 Survey Methods***

A combination of intensive and reconnaissance pedestrian survey was conducted on July 11, 2018 by Staff Archaeologist Patrick Zingerella (Appendix B, Photos 1-10). The entirety of the Project area was not intensively surveyed due to the developed nature of the entire Project area as well as the fact that the northern half of the Project area was previously investigated for the Dublin Crossing Specific Plan EIR in April 2012.

Exposed ground surface within the Project area was examined for the presence of historic or prehistoric site indicators. Historic site indicators include, but are not limited to foundations, fence lines, ditches, standing buildings, objects or structures such as sheds, or concentrations of materials at least 50 years in age, such as domestic refuse (glass bottles, ceramics, toys, buttons or leather shoes), or refuse from other pursuits such as agriculture (e.g., metal tanks, farm machinery parts, horse shoes) or structural materials (e.g., nails, glass window panes, corrugated metal, wood posts or planks, metal pipes and fittings, etc.). Prehistoric site indicators include but are not limited to areas of darker soil with concentrations of ash, charcoal, animal bone (burned or unburned), shell, flaked stone, ground stone, or even human bone.

### ***6.2 Results of the Archaeological Field Survey***

The survey was accessed from the north by trail access parking on Houston Place. The survey commenced north of Dublin Boulevard, and continued southeast along the Project area. Much of the Project area north of Dublin Boulevard is located to the north and east of the existing trail in an area that has been graded for development (Appendix B, Photos 1-9). As a result, surface visibility in this area was excellent (100%). An intensive pedestrian survey (15-meter intervals) was conducted in this area. The Project area located north and west of Chabot Canal contained non-native fill throughout, depth unknown. Sediments were brown, dry and crumbly silty clay with local sub-angular and rounded gravels (Appendix B, Photo 5). This area contained a diffuse, heavily disturbed refuse scatter containing over 20 pieces of plain ironstone tableware fragments, more than 50 glass bottle fragments, and the only temporally diagnostic artifact seen with the Project area: the bottom half of a Homer Loughlin mug with a backstamp indicating its manufacture date as March 1944. This material appears to have been graded into the ground by mechanical means and may have originated from other portions of the property. Because the refuse scatter is not intact and is heavily disturbed, it does not retain any information potential and, as such, was not documented as a cultural resource.

The Project area then crosses Chabot Canal, a channelized north-northeast trending ditch (Appendix B, Photo 6). Surface visibility was very poor (< 5%) in this area and included dried bromes, foxtail and thistle. This area was disturbed by construction of three large culverts (Appendix B, Photo 2). The Project area met with the existing Iron Horse Trail approximately



50 feet southeast of the footbridge over Chabot Canal. This area is located on a mechanically disturbed 4-foot high berm, with asphalt and mulch significantly limiting surface visibility (< 10%). As such, this portion of the Project area does not contain culturally intact soils. The survey proceeded southeast to Dublin Boulevard, at which point surface visibility reduces to nil due to landscaping and paving (Appendix B, Photo 7).

The survey continued to the south of Dublin Boulevard toward the southeast, approximately 500 feet along the existing Iron Horse Trail to the end of the Project area (Appendix B, Photo 8). A single transect was surveyed on both sides of the existing trail. The trail is located on a broad berm approximately 50 feet wide and varying from 3 to 6 feet above the surrounding drainage ditches (Appendix B, Photo 9). Surface visibility was poor (0-10%) throughout. Vegetation consisted of dried bromes, prickly lettuce, foxtail and landscaping with immature oak trees. Mulch was also spread approximately 10 feet on either side of the paved trail. Sediments were brown with a silty clay texture. No prehistoric or historic artifacts were identified in the Project area south of Dublin Boulevard.

No intact historic or prehistoric-era deposits or features were identified on the ground surface within the Project area; however, visibility of the ground surface was limited throughout.

## **7.0 Project Impacts and Mitigation**

PaleoWest conducted a pedestrian cultural resources survey of the Project area on July 11, 2018. No intact cultural resources were observed during the survey. In addition, the records search results indicated that there are no previously recorded cultural resources present within the Project area.

Given the negative results of the current cultural resources assessment as well as the negative results for the overlapping Dublin Crossing Specific Plan project area, PaleoWest recommends that no new or substantially more severe significant impacts to cultural resources will occur as a result of the current Project. PaleoWest recommends that the two cultural resource mitigations measures from the Dublin Crossing Specific Plan EIR be applied to the current Project for the unanticipated discovery of cultural resources and human remains. These mitigation measures are outlined explicitly below (RBF 2013:ES-32).

**MM 3.4-2** Halt Work/Archaeological Evaluation/Site-Specific Mitigation. If any potential archaeological, pre-historic or cultural artifacts are encountered during site grading or other construction activities, all ground disturbance within 50 feet of the discovery shall be halted until a qualified archaeologist can identify and evaluate the resource(s) in accordance with State CEQA Guidelines 15064.5(f). The archeological consultant shall immediately notify the project sponsor and the City staff of the encountered archeological deposit. If the deposit does not qualify as an archaeological resource, then no further protection or study is necessary. If the deposit does qualify as an archaeological resource, then the impacts shall be avoided by project activities. If the deposit cannot be avoided, adverse impacts to the deposit shall be addressed in accordance with State CEQA Guidelines 15126.4(b). Measures may include, but



are not limited to archaeological data recovery, etc. Upon completion of the assessment by the archaeologist, a professional-quality report shall be submitted to the City, the project applicant, and the Northwest Information Center at Sonoma State University in Rohnert Park.

MM 3.4-4 Halt Work/Coroner's Evaluation/Native American Heritage Consultant/Compliance with Most Likely Descendent Recommendations. In the event that human remains are encountered during grading and site preparation activities, all ground-disturbing work within 50 feet of the remains shall cease immediately and a qualified archaeologist shall notify the Office of the Alameda County Coroner and advise that office as to whether the remains are likely to be Native American. If determined to be Native American, the Alameda County Coroner's Office shall notify the Native American Heritage Commission of the find, which in turn will then appoint a "Most Likely Descendent. (MLD)." The MLD in consultation with the archaeological consultant and the project sponsor will advise and help formulate an appropriate plan for treatment of the remains, which might include recordation, removal, and scientific study of the remains and any associated artifacts. After completion of the analysis and preparation of the report of findings, the remains and associated grave goods shall be returned to the MLD for burial.

No additional mitigation measures are recommended for this Project; however, should additional actions be proposed outside of the currently defined Project area that have the potential for additional subsurface disturbance, further cultural resource management may be required.



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## **Appendix A**

Previously Recorded Cultural Resource Studies within a Half-Mile of the Project Area



<b>Report No.</b>	<b>Year</b>	<b>Author(s)</b>	<b>Title</b>
S-000898	1976	Edward M. Love, Miley Paul Holman, and David Chavez	An Archaeological Reconnaissance of the Proposed Pipeline Routes and Reservoir Locations, Livermore-Amador Valley Water Management Agency, Alameda County, California
S-000914	1976	Miley P. Holman and David Chavez	An Archaeological Reconnaissance of the Proposed Pipeline Routing Changes Along the Dublin Canyon to the San Lorenzo Portion of the Livermore-Amador Valley Waste Treatment Project, Alameda County, California
S-001098	1978	Peter M. Banks	A Preliminary Investigation of the Heritage Park Site, Dublin, Alameda County, California.
S-002019	1979	Miley Paul Holman	An archaeological reconnaissance of the proposed 5 acre building site in Dublin, California (letter report)
S-002020	1979	Miley P. Holman	An archaeological reconnaissance of the development area located on the laborer's training center property near the City of Dublin, Calif. (letter report)
S-002021	1979	Miley P. Holman	Archaeological Field Reconnaissance of the Proposed Kemco Development Area in the City of Dublin, California (letter report)
S-002023	1979	Miley Paul Holman	A field archaeological reconnaissance of the proposed development area known as the "Calmet Project" in the City of Dublin, California (letter report)
S-002024	1979	Miley P. Holman	An Archaeological Field Reconnaissance of the proposed development area known as the Neilsen Property, in Dublin, Alameda County, Calif. (letter report)
S-002400	1980	Michael J. Sawyer and George R. Miller	An Archaeological Reconnaissance of the San Ramon Road / Amador Valley Road Interchange Project, Dublin, Alameda County, California
S-002631	1980	Miley Paul Holman	Archaeological field reconnaissance of the proposed Silvergate development in the City of Dublin, Contra Costa County (letter report)
S-002780	1981	Robert A. Stillinger	An Archaeological Survey of the Proposed Hacienda Business Park, Tract 4857, Pleasanton, California
S-002806	1981	Matthew R. Clark and Miley Paul Holman	Report of Archaeological Survey of Portions of the Proposed Hacienda Business Park Development, Pleasanton, Alameda County, California (letter report)
S-002806a	1982	Miley Paul Holman and Sarah Slater	A report of archaeological site location at the Hacienda Business Park, Pleasanton, California
S-002806b	1982	Miley Paul Holman and Randy Wiberg	Further testing for buried archaeological site material at the Hacienda Business Park, Pleasanton, California
S-002996	1975	Miley Paul Holman	An archaeological reconnaissance of the "Willow West" property, Pleasanton, Alameda County (letter report)
S-006422	1984	Margaret L. Buss	Archaeological Survey Report, improvements to the Hopland Road/Route 580 Interchange, 04-ALA-580 P.M. 19.8/20.0 210-113520
S-006516	1984	Miley Paul Holman	Field Testing of the Abijah Baker House, Hacienda Business Park, and Further Testing for Buried Archaeological Resources, Pleasanton, Alameda County, California
S-007529	1985	Peter M. Banks	An Archaeological Reconnaissance for the San Ramon Road Improvements Project: Phases 2, 3 and 4, Dublin, Alameda County, California.
S-008738	1986	Jo Rainie Rodgers, George P. Rodgers, and Mark Hylkema	A Cultural Resources Investigation of the Proposed Veterans Administration Northern California National Cemetery Sites at Santa Nella and Camp Parks



<b>Report No.</b>	<b>Year</b>	<b>Author(s)</b>	<b>Title</b>
S-008785	1986	R. Paul Hampson	Cultural Resources Reconnaissance of Assessor's Parcel Number 941-1600-5-6, Near Dublin, Alameda County, California
S-008785a	1987	R. Paul Hampson	Archaeological Testing of That Portion of CA- ALA-43 Within Assessor's Parcel Number 941-1600-5-6, Near Dublin, Alameda County, California
S-010762	1990	Mara Melandry	Historic Property Survey Report, proposed reconstruction of the I-580/I-680 interchange in the cities of Dublin and Pleasanton in Alameda County, 04-ALA-580/680, Post Miles 18.2/R21.6, 18.8/21.9, 182-233040
S-010762a	1989	Marcia K. Kelly	Archaeological Survey Report, proposed reconstruction of the I-580/I-680 Interchange in the cities of Dublin and Pleasanton in Alameda County, 4-ALA-580/680, Post Miles 18.2/R21.6, 18.8/21.9, EA 4182-233040
S-010762b	1990	E.W. Blackmer	Historical Architectural Survey Report, 4-Ala- 580/680, 18.2/R21.6, 18.8/21.9, 182-233040 (letter report)
S-011161	1989	Suzanne Baker, Laurence H. Shoup, and Anne Bloomfield	Technical Report - Cultural Resources, BART Dublin/Pleasanton Extension Project
S-011601	1988	Roger H. Werner	Cultural Resources Survey for Proposed Improvements to Dublin Boulevard, Dublin, California
S-012132	1990	Patricia Ryan Farrell and Roger H. Werner	Cultural Resources Survey of a Proposed Dougherty Road Widening in Dublin, Alameda County, California
S-013798	1991	Miley Paul Holman	Archaeological Field Inspection of the Proposed Schaefer Ranch Road Interchange and Hook Ramp Option, Dublin, Alameda County, California (letter report)
S-017993a	1995	Brian Hatoff, Barb Voss, Sharon Waetcher, Stephen Wee, Vance Bente	Proposed Mojave Northward Expansion Project: Appendix A - Native American Consultation
S-017993b	1995	Brian Hatoff, Barb Voss, Sharon Waetcher, Stephen Wee, Vance Bente	Proposed Mojave Northward Expansion Project: Appendix B - Looping Segments - Class 1
S-017993c	1995	Brian Hatoff, Barb Voss, Sharon Waetcher, Stephen Wee, Vance Bente	Proposed Mojave Northward Expansion Project: Appendix C -Monitoring and Emergency Discovery Plan
S-017993d	1995	Brian Hatoff, Barb Voss, Sharon Waetcher, Stephen Wee, Vance Bente	Proposed Mojave Northward Expansion Project: Appendix D - General Construction Information
S-017993e	1995	Brian Hatoff, Barb Voss, Sharon Waetcher, Stephen Wee, Vance Bente	Proposed Mojave Northward Expansion Project: Appendix E - Archaeological Site Records
S-017993f	1995	Brian Hatoff, Barb Voss, Sharon Waetcher, Stephen Wee, Vance Bente	Proposed Mojave Northward Expansion Project: Appendix F - Historic Features Evaluation Forms
S-017993g	1995	Brian Hatoff, Barb Voss, Sharon Waetcher, Stephen Wee, Vance Bente	Proposed Mojave Northward Expansion Project: Appendix G - Railroad Crossing Evaluation Forms
S-017993h	1995	Brian Hatoff, Barb Voss, Sharon Waetcher, Stephen Wee, Vance Bente	Proposed Mojave Northward Expansion Project: Appendix H - Crossing Diagrams and Plan View Maps
S-017993i	1995	Brian Hatoff, Barb Voss, Sharon Waetcher, Stephen Wee, Vance Bente	Proposed Mojave Northward Expansion Project: Appendix I - Railroad Depot NRHP Nomination Forms and Related Records
S-017993j	1995	Brian Hatoff, Barb Voss, Sharon Waetcher, Stephen Wee, Vance Bente	Proposed Mojave Northward Expansion Project: Appendix J - Looping Segment and Compressor Station Site Records



Report No.	Year	Author(s)	Title
S-017993k	1995	Brian Hatoff, Barb Voss, Sharon Waetcher, Stephen Wee, Vance Bente	Proposed Mojave Northward Expansion Project: Appendix K - Historic Site Records / Isolate Forms
S-017993l	1995	Brian Hatoff, Barb Voss, Sharon Waetcher, Stephen Wee, Vance Bente	Proposed Mojave Northward Expansion Project: Appendix L - Photodocumentation
S-017993m	1995	Brian Hatoff, Barb Voss, Sharon Waetcher, Stephen Wee, Vance Bente	Proposed Mojave Northward Expansion Project: Appendix M - Curricula Citae of Key Preparers
S-019293	1997	Matthew R. Clark	An Archaeological Reconnaissance of the Lands of Lester on Dublin Canyon Road, Pleasanton, Alameda County, California
S-020088	1997	Robert Gerry	Cultural Resources Assessment of the Proposed National Guard Armory and Organizational Maintenance Shop at Camp Parks, Alameda County, California
S-021806	1999	Randy S. Wilberg	Assessment of a Possible Archaeological Resource Within Dublin Ranch Areas "F-H" (APN 985-5-1), Dublin, Alameda County, California
S-021807	1999	Randy S. Wilberg	Surface and Subsurface Mechanical Testing for Archaeological Resources at Dublin Ranch Area "E" (APN 985-3-3-2), Dublin, Alameda County, California
S-021808	1999	Randy S. Wilberg	Surface and Subsurface Mechanical Testing for Archaeological Resources at Dublin Ranch Area "A" (APN 985-7-2-8, 985-6-7 and 985-6-8), Dublin, Alameda County, California
S-022071	1999	William Self Associates and Ward M. Hill	Koller Ranch: Architectural Assessment and Subsurface Testing of Site CA-ALA-570, Dublin, Alameda County, CA
S-022501	1999		Historic Property Survey Report and Findings of No Historic Properties Affected for I-680 "Sunol Grade" Southbound Improvement Project in the Cities of Pleasanton and Fremont & Unincorporated Alameda County, and in the City of Milpitas, Santa Clara County, 04-ALA-680 KP 0.0/R35.2 (PM 0.0/R21.9) and 04-SCL-680 KP 12.2/16.0 (PM 7.6/9.9), EA 04-259-253700
S-022501a	1999	Glenn Gmoser, Jeff Rosenthal, William Hildebrandt, and Pat Mikkelsen	Archaeological Survey Report, Archaeological Survey of the I-680 Corridor between Dublin and Milpitas in Alameda and Santa Clara Counties for the "Sunol Grade" Southbound Improvement Project, 04-ALA- 680 PM 0.0/21.9 and 04-SCL-680 PM 7.6/9.9; EA 04-259-253
S-022501b	1999	Elizabeth Krase, Marianne Hurley, and William Kostura	Historic Architecture Survey Report for the I- 680 "Sunol Grade" Southbound Improvement Project in the Cities of Pleasanton and Fremont and unincorporated Alameda County, and in the City of Milpitas, Santa Clara County, 04-ALA-680 KP 0.0/R35.2 (PM 0.0/R21.
S-022501c	1999	Daniel Abeyta	FHWA991122A: I-680 Sunol Grade Southbound Improvement Project, Alameda County
S-023216	2000	William Self Associates	Archaeological Survey Report, Dublin Boulevard Widening Project, Alameda County, California
S-023230	1998	Shahira A. Ashkar	Cultural Resources Inspection at the Proposed Location of a New Front Gate at Parks Reserve Forces Training Area (letter report)



<b>Report No.</b>	<b>Year</b>	<b>Author(s)</b>	<b>Title</b>
S-023257	2000	Holly D. Knudson	Review of the Proposed Nextel Communications Wireless Facility CA-2076A, West Livermore, 6005 Scarlett Court, Dublin, Alameda County, California (letter report)
S-023352	1995	Allen G. Pastron	Archival Literature Search and On-Site Archaeological Surface Reconnaissance of an Approximately 5 Acre Parcel, Located off San Pablo Avenue, near Dublin and Murphy Drives, near the City Limits of Pinole in an Unincorporated Portion of Contra Costa County, California
S-023378	2000	Colin I. Busby and Stuart A. Guedon	Constraints Analysis-Proposed Improvements of the Fallon Road/El Charro Road Interchange, City of Dublin/Unincorporated Alameda County (letter report)
S-023474	1995	Allen G. Pastron	Archival Literature Review and On-Site Archaeological Surface Reconnaissance of an Approximately 30 Acre Parcel, Located on the North Side of Dublin Boulevard, to the West of Tassajara Road, Within the City of Dublin, Alameda County, California
S-023881	2001	Carolyn Losee	Record Search for Sprint Spectrum's Personal Communication Services (PCS) Wireless "South Central Dublin" Site (Ref # SF36XC021D): No Further Recommendations (letter report)
S-023918	2001	Leigh Martin, Marin Pilloud, and Kimberley Popetz	Historic Evaluation Report, Dublin Ranch West, Alameda County, California
S-024417	2001	Colin I. Busby	Historic Properties Survey Report 1-580/ Tassajara Road Interchange Modifications Project, Cities of Dublin and Pleasanton, Alameda County, California, KP 27.2/29.2 (PM 16.9/ 18.2) EA 25770k
S-024417a	2001	Colin I. Busby	Archaeological Survey Report (Negative), I-580/Tassajara Road Interchange Modifications Project, Cities of Dublin and Pleasanton, Alameda County, California
S-024417b	2000	Colin I. Busby	Constraints Analysis - Proposed Improvements of the Tassajara Road Interchange, Pleasanton/Livermore Area, Alameda County
S-024417c	2001	Colin I. Busby	Historic Property Survey Report - Negative Findings
S-024417d	2001	Colin I. Busby	Archaeological Survey Report (Negative), I-580/Tassajara Road Interchange Modifications Project, Cities of Dublin and Pleasanton, Alameda County, California
S-025126	2001	Leigh Martin and William Self	Cultural Resources Assessment Report, Proposed Sewer Rehabilitation, Camp Parks, Dublin, Alameda County, California
S-025266	2000	Miley Holman	Archival Research and Field Inspection of the Proposed Dublin Transit Center EIR Project Area, Dublin, Alameda County, California (letter report)
S-025277	2000	Miley Holman	Phase I Archaeological Study of the Bart/ Dublin/ Pleasanton Extension Mitigation Project at Camp Parks, Alameda County Proposed Construction of Ponds B-9 and B-10 (letter report)
S-025277a	2000	Knox Mellon and John W. Randolph	USA010122K; Proposed Construction of Mitigation Wetlands, Parks Reserve Forces Training Area, Dublin, Alameda and Contra Costa Counties, California
S-025313a	2002	DawnLee DeYoung and Knox Mellon	USA020415A: Re: Inventory and Evaluation of World War II and Cold War Era Buildings, Parks Reserve



Report No.	Year	Author(s)	Title
			Forces Training Area, Alameda and Contra Costa Counties, California
S-026071a	1999	Daniel Abeyta	COE990927D: Re: Identification of Historic Properties at Parks Reserve Forces Training Area, Dublin, CA
S-026075	2002	Damon Haydu and Melinda Button	A Cultural Resources Study of Seven Locations Within the Parks Reserve Forces Training Area, Dublin, Contra Costa and Alameda Counties, California
S-026096a	1981	William Roop and Katherine Flynn	Cultural Resources Literature Search and Field Reconnaissance of Camps Parks, Alameda and Contra Costa Counties, California
S-026096b	1986		Structures Evaluation for National Register of Historic Places for the Parks Reserve Forces Training Area, Contra Costa and Alameda Counties, California
S-026096c	1996	George C. Widdel and Kathryn Gualtieri	COE860227A through I; Re: SPKED-D, Parks Reserve Forces Training Area, Determinations of Eligibility
S-027387	2001	Sara E. P. Gillies	A Cultural Resources Study For the Santa Rita / Dublin Site, Alameda County, California
S-027909	2004	Page and Turnbull, Inc	Dublin Historic Resources Identification Project, Final Report
S-027989	2001	Basin Research Associates	Archaeological Resources Assessment Report, Alameda County Juvenile Hall, City of Dublin, Alameda County, California
S-028003	2002	Colin I. Busby	Archaeological Resources Literature Review, Juvenile Justice Facility Alternative Sites, East County Government Center Alternative Parcel 15A Site, City of Dublin, Alameda County, California (letter report)
S-028645	2003	Miley Paul Holman	Result of a Phase I Archaeological Study of the Tassajara Creek Fence Area West of Tassajara Road, Dublin, Alameda County, California
S-028675	2004	Miley Paul Holman	Archaeological Field Inspection of the Mission Peak Property, East Dublin, Alameda County, California (letter report)
S-029041	2003	Kyle Brown, Aimee Arrigoni, and William Self	Archaeological Assessment Report, Donlon Way Area Specific Plan, City of Dublin, Alameda County, California
S-029304	2004	Miley Paul Holman	Archaeological Field Survey for the 7 Acre Alternate DSRSD Location, Parks Reserve Forces Training Area, Dublin, Alameda County, California (letter report)
S-030166	1990	Frances Welling and Charles Welling	Rasmussen Farm, Addendum to Historical Evaluation Previously Conducted in 1985 by California Archaeological Consultants.
S-030166a	1985	Gary F. Wirth	Historic Architecture Report, Residence - 7436 San Ramon Road, Dublin
S-030248	2005	Beth A. Gordon	Historic Resource Report, SNFCCA0065 / Amador Valley Road, 7557 Amador Valley Boulevard, Dublin, Alameda County, California.
S-030253	2005	Beth A. Gordon	Historic Resource Report, SNFCCA1891A/Komandorski Village, AFRC FMC, CDF Dublin Road, Dublin, Alameda County, California.
S-030533	2000	George McHale	Historical and Archaeological Review for Site PI-383-01, 6830 Village Parkway, Dublin, Alameda County, CA (50001-25/00)
S-030588	2004	Basin Research Associates	Cultural Resources Report in Support of Eastern Dublin Properties Resource Management Plan (RMP), City of Dublin, Alameda County, California.



<b>Report No.</b>	<b>Year</b>	<b>Author(s)</b>	<b>Title</b>
S-030607	2004	Colin I Busby	Cultural Resources Assessment Report -Archaeology and Built Environment Fallon Villages (Bankhead and Mandeville Properties), City of Dublin, Alameda County
S-030607a	2004	Ward Hill	Historic Evaluation Report Fallon Ranch
S-030611	2004	Colin I Busby	1881 Collier Canyon Road, Livermore (Collier Ranch), Eastern Dublin Properties Resource Management Plan, Supplemental Cultural Resources Review - Built Environment, City of Dublin, Alameda County (APN 905-0001- 004-04) (letter report)
S-030628	2005	Robert Herrmann	Cultural Resources Survey of the Proposed SNFCCA0065/Amador Valley Road Cellular Site, 7557 Amador Valley Road, Dublin, Alameda County, California
S-031643	2006	Eric Strother, James Allan, and William Self	Archaeological Assessment of the Proposed Alamo Creek Trunk Sewer Relocation Project, Dublin, Alameda County, California
S-032162	2005	Lorna Billat	New Tower ("NT") Submission Packet, FCC Form 620, Dublin Ranch, SF-16030A
S-033429	2005	Christian Fish	Draft Cultural Resource Assessment for the Camp Parks RFTA Metering Project, Contra Costa County and Alameda Counties, California
S-033429a	2001	John W. Randolph and Knox Mellon	USA010228B, USA010228C: Re: Proposed Demolition of Building 1160, Parks Reserve Forces Training Area, Dublin, Alameda and Contra Costa Counties; Re: Demolition of Building 341, Parks Reserve Forces Training Area, Alameda and Contra Costa Counties
S-034221	2006	Colin I. Busby	Cultural Resources Assessment Vargas/Fredrich Properties, Dublin, Alameda County (letter report)
S-034997	2008	Miley Paul Holman	Cultural Resources Investigation and Native American Consultation for the Grafton Plaza Project, Dublin, Alameda County, California (letter report)
S-034998	2008	Miley Paul Holman	Cultural Resources Inspection and Native American Consultation for the Nielsen Property, Dublin, Alameda County, California (letter report)
S-035826	2008	Brian F. Byrd	Historic Property Survey Report for the I-580 Westbound High Occupancy Vehicle Lane Project, Greenville Road to San Ramon/Foothill Roads, Alameda County, California: 4-Ala-580, P.M. 8.29/21.43, EA 29082K
S-035854	2008	Suzanne Baker and Nina Ilic	Cultural Resources Monitoring Report, Dublin Historic Park, City of Dublin, California
S-035854a	2009	Suzanne Baker	Cultural Resources Monitoring Report #2, Dublin Historic Park, City of Dublin, California
S-036316	2009	Mitch Marken	Seismic Upgrade of Bay Division Pipeline Nos. 3 and 4 at Hayward Fault Project, Fremont, Alameda County, California: Historic Context and Archaeological Survey Report
S-036316a	1999	Glenn Gmoser, Jeff Rosenthal, William Hildebrandt, and Pat Mikkelsen	Archaeological Survey of the I-680 Corridor between Dublin and Milpitas in Alameda and Santa Clara Counties for the "Sunol Grade" Southbound Improvement Project
S-036316b	2009	Milford Wayne Donaldson and Mitch Marken	COE090417A; San Francisco Public Utilities Commission (SFPUC) Water System Improvement Program, BDPL Pipeline Nos. 3 and 4 at Hayward Fault



Report No.	Year	Author(s)	Title
			Seismic Upgrade Project, Fremont, Alameda County, California
S-036776	2009	Wayne Bonner and Sarah Williams	Cultural Resources Records Search and Site Visit Results for T-Mobile West Corporation a Delaware Corporation Candidae BA42651 (Nielson Ranch), 7478 San Ramon Road, Dublin, Alameda County, California
S-036958	2010	Carolyn Losee	Cultural Resources Investigation for Clearwire #CA-SFO0487A "Schaefer Ranch Water Tank", 10001 Dublin Canyon Road, Castro Valley, Alameda County, California 94552
S-037468	2010	Carrie D. Wills and Erin McMurry	Cultural Resources Records Search and Site Visit for Sprint Nextel Candidate SF74XC432A (Tassajara South), 6089 Madigan Road, Dublin, Alameda County, California. (Letter Report)
S-037500	2010	Carrie D. Wills	Cultural Resources Records Search and Site Visit for T-Mobile West Corporation, a Delaware Corporation Candidate BA22803-A (DSA Dublin High School), 8151 Village Parkway, Dublin, Alameda County, California. (Letter Report)
S-037985	2011	Paul Farnsworth	Archaeological Testing Report for the Arroyo Vista Project, City of Dublin, Alameda County, California.
S-038860	2012	James M. Allan	CEQA Cultural Resources Technical Study, Dougherty Road Improvements Project, Dublin, Alameda County, California (letter report)
S-039062	2009	Colin I. Busby	Results, Field Inventory and Mechanically Assisted Presence/Absence Archeological Testing within CA-Ala-508/H, Dublin, Alameda County
S-039148	2012	Neal Kaptain	Historic Property Survey Report, Iron Horse Trail, City of Pleasanton, Alameda County, California
S-039148a	2012	Neal Kaptain	Archaeological Survey Report for the Iron Horse Trail Project, Caltrans District 04, City of Pleasanton, Alameda County, California, Federal ID No.: TGR2DGL 6075 (018)
S-040270	2012	Amy E. Foutch	PG&E External Corrosion Direct Assessment (ECDA) on DFM 2408-11, Station 41+53, Dublin California (Letter Report)
S-040758	2012	Virginia Hagensieker and Janine M. Loyd	A Cultural Resources Study for a Proposed Recycled Water Expansion Project, Dublin, Alameda County, California
S-040758a	2013	Virginia Hagensiker and Janine M. Loyd	A Cultural Resources Study for a Proposed Recycled Water Expansion Project, Dublin, Alameda County, California (revised)
S-040758b	2015	Julianne Polanco	BUR_2015_0615_001; National Historic Preservation Act (NHPA) Section 106 Consultation for the Western Dublin Recycled Water Expansion Project, Alameda County, California (15-MPRO-110)
S-042292	2011	Aniela Travers	Cultural Resources Analysis; San Ramon Rd d& Shannon Ave/CC120; 6501 Golden Gate Drive, Dublin, Alameda county, CA 94568; EBI Project # 61112580
S-042632	2013	Carolyn Losee	Cultural Resources Investigation for AT&T Mobility CCU1075 "Fallon Rd & Positano Pkwy" 4605 Lockhart Street, Dublin, Alameda County, CA 94568 (letter report)
S-042775	2013	Carolyn Losee	Cultural Resources Investigation for AT&T Mobility CNU0766 "Shannon Park" 8208 Rhoda Avenue, Dublin, Alameda County, CA 94568(letter report)



Report No.	Year	Author(s)	Title
S-042775a	2014	Carolyn Losee and Carol Roland-Nawi	FCC_2014_0421_001, CCU0766 "Pleasanton-Shannon Park 8208 Rhoda Avenue, Dublin, Collocation
S-045735	2014	Carrie D. Wills	Cultural Resources Records Search and site Visit Results for Verizon Wireless Candidate Dublin Ranch, 4605 Lockharte Street, Dublin, Alameda County, California, EBI Project No. 61145616 (letter report)
S-045994	2015	Justin Castells	Submission Packet, FCC Form 620, for proposed New Tower Project, 5220 Fallon Road, Dublin, Alameda County, California, CCU2048 / Tassajara Relo-TEMP/PERM, EBI Project Number: 61149468 (letter report)
S-045994a	2015	Virginia Clifton and MacKensie Cornelius	Cultural Resources Survey, Tassajara Relo - TEMP/PERM / CCU2048, 5220 Fallon Road, Dublin, Alameda County, California 94568, NE 1/4 of the SW 1/4 S27 T02S R01E, EBI Project No. 61149468
S-046736	2014	Carolyn Losee	Cultural Resources Investigation for AT&T CNU4975 "Dougherty Road & North Avenue," 6955 Serra Court, Dublin, Alameda County, California 94568 (letter report)
S-046860	2009	Miley Paul Holman	Cultural Resources Study of the Dublin Ranch North Property, Alameda County, California - (letter report)
S-047534	2014		Section 106 Cultural Resources Investigation Report, City of Pleasanton Recycled Water Project (CWSRF) No. C-06-8024-110
S-047534a	2015		Update to the Section 106 Cultural Resources Investigation Report, Recycled Water Project
S-047534b	2015	Steve Brown, Daniel Shoup, and Steve Kirkpatrick	Section 106 Cultural Resource Issues with City of Pleasanton's Recycled Water Project (letter report)
S-047534c	2015	Carol Roland-Nawi and Cedric Irving	EPA_2014_1212_001; Section 106 Consultation for the Pleasanton Recycled Water Project, City of Pleasanton, Alameda County, California
S-047983	2011	Carrie D. Wills	Section 106 Cultural Resources Assessment DSRSD Central Dublin Recycled Water Distribution and Retrofit Project, City of Dublin, Alameda County, California
S-047983a	2012	Milford Wayne Donaldson	BUR111208A; Section 106 Compliance for the Dublin San Ramon Services District (DSRSD) Central Dublin Recycled Water Distribution and Retrofit Project in Alameda County, California (Project #09-CCAO-165)
S-048110	2012	Vicki Beard	Archival Search Results for the Property at 6707 Golden Gate Drive in Dublin, Alameda County
S-048433	2016	Janine M. Origer	Cultural Resources Study for the Dublin San Ramon Services District Regional Wastewater Facility Project, Pleasanton, Alameda County, California
S-048499	1993	Mark R. Hale	Negative Archaeological Survey Report, BART Dublin/Pleasanton Extension Project, East Dublin/Pleasanton Station, Pleasanton, Alameda County, California
S-048940	2016	Jennifer Roland	Phase I Investigation for the Crown Castle Pleasanton Tower Installation Project, Pleasanton, Alameda County, California.
S-048940a	2016	Dana Whitaker	Collocation ("CO") Submission Packet, FCC FORM 612, Crown Castle-Pleasanton / BU #845523-Trileaf Project #625086, 3986 Santos Ranch Road, Pleasanton CA 94588, Alameda County, Dublin Quadrangle (DeLorme), Latitude: 37° 39' 56.77" N. Longitude: 121° 55' 21.89" W



Report No.	Year	Author(s)	Title
S-049423	2017	Carolyn Losee	Cultural Resources Investigations for Trileaf 634236/Crown Castle 830171 "NEW DUBLIN" 10001 Dublin Canyon Road, Castro Valley, Alameda County, California 94546 (letter report)



## **Appendix B**

Native American Correspondence / Assembly Bill 52 Notification Letters



## Sacred Lands File & Native American Contacts List Request

### NATIVE AMERICAN HERITAGE COMMISSION

1550 Harbor Blvd, Suite 100  
West Sacramento, CA 95501  
(916) 373-3710  
(916) 373-5471 – Fax  
[nahc@nahc.ca.gov](mailto:nahc@nahc.ca.gov)

*Information Below is Required for a Sacred Lands File Search*

Project: \_\_\_\_\_

County: \_\_\_\_\_

USGS Quadrangle

Name: \_\_\_\_\_

Township: \_\_\_\_\_ Range: \_\_\_\_\_ Section(s): \_\_\_\_\_

Company/Firm/Agency:

\_\_\_\_\_  
Contact Person: \_\_\_\_\_

Street Address: \_\_\_\_\_

City: \_\_\_\_\_ Zip: \_\_\_\_\_

Phone: \_\_\_\_\_ Extension: \_\_\_\_\_

Fax: \_\_\_\_\_

Email: \_\_\_\_\_

Project Description:

\_\_\_\_ Project Location Map is attached



**NATIVE AMERICAN HERITAGE COMMISSION**

Environmental and Cultural Department  
1550 Harbor Blvd., ROOM 100  
West SACRAMENTO, CA 95691  
(916) 373-3710  
Fax (916) 373-5471



June 25, 2018

Robbie Thomas

Paleo West

Sent by Email: rthomas@paleowest.com

Re: Iron Horse Trail Bike Pedestrian Over-crossing, Alameda County

Dear Robbie,

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were negative. However, the absence of specific site information in the SLF does not preclude the presence of cultural resources in any project area. Other sources for cultural resources should also be contacted for information regarding known and/or recorded sites.

Enclosed is a list of Native Americans tribes who may have knowledge of cultural resources in the project area. I suggest you contact all of those indicated, if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from any of these tribes, please notify me. With your assistance we are able to assure that our lists contain current information. If you have any questions or need additional information, please contact me at 916-573-1033 or frank.lienert@nahc.ca.gov.

Sincerely,

A handwritten signature in blue ink, appearing to read "Frank Lienert", with a long horizontal flourish extending to the right.

Frank Lienert  
Associate Governmental Program Analyst



**Native American Heritage Commission**

**Native American Contacts**

**6/25/2018**

**Coastanoan Rumsen Carmel Tribe**

**Tony Cerda, Chairperson**

**244 E. 1st Street**

**Pomona, CA 91766**

**rumssen@aol.com**

**(909) 524-8041 Cell**

**(909) 629-6081**

**Ohlone/Costanoan**

**Indian Canyon Mutsun Band of Costanoan**

**Ann Marie Savers, Chairperson**

**P.O. Box 28**

**Hollister, CA 95024**

**ams@indiancanyon.org**

**(831) 637-4238**

**Ohlone/Costanoan**

**Amah Mutsun Tribal Band of Mission San Juan Bautista**

**Irene Zwiernie, Chairperson**

**789 Canada Road**

**Woodside, CA 94062**

**amahmutsuntribal@gmail.com**

**(650) 851-7489 Cell**

**(650) 851-7747 Office**

**(650) 332-1526 Fax**

**Ohlone/Costanoan**

**North Valley Yokuts Tribe**

**Katherine Erolinda Perez, Chairperson**

**P.O. Box 717**

**Linden, CA 95236**

**canutes@verizon.net**

**(209) 887-3415**

**Ohlone/Costanoan**

**Northern Valley Yokuts**

**Bay Miwok**

**Muwekma Ohlone Indian Tribe of the SF Bay Area**

**Rosemary Cambra, Chairperson**

**P.O. Box 360791**

**Milpitas, CA 95036**

**muwekma@muwekma.org**

**(408) 314-1898**

**Ohlone / Costanoan**

**(510) 581-5194**

**The Ohlone Indian Tribe**

**Andrew Galvan**

**P.O. Box 3388**

**Fremont, CA 94539**

**chochenyo@AOL.com**

**(510) 882-0527 Cell**

**(510) 687-9393 Fax**

**Ohlone/Costanoan**

**Bay Miwok**

**Plains Miwok**

**Patwin**

**This list is current only as of the date of this document and is based on the information available to the Commission on the date it was produced.**

**Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resource Section 5097.98 of the Public Resources Code.**

**This list is only applicable for contacting local Native American Tribes with regard to cultural resources assessments for the proposed**

**Iron Horse Trail Bike Pedestrian Over-crossing, Alameda County**



August 2, 2018

Rosemary Cambra, Chairperson  
Muwekma Ohlone Indian Tribe of the SF Bay Area  
P.O. Box 360791  
Milpitas, CA 95036  
Transmitted via [muwekma@muwekma.org](mailto:muwekma@muwekma.org)

**Re:** Cultural Resource Investigation for the Iron Horse Trail Phase I Project, Dublin, Alameda County, California

Dear Ms. Cambra,

On behalf of Metis Environmental, PaleoWest Archaeology (PaleoWest) is conducting a cultural resource investigation, in compliance with the California Environmental Quality Act (CEQA), for the proposed Iron Horse Trail Phase I Project (Project) within the city of Dublin, in Alameda County, California. The proposed Project involves development of an overcrossing at Dublin Boulevard connecting two components of the Iron Horse Trail. The Project area is located on the Dublin, Calif. 7.5' USGS quadrangle map, within Section 3 in T3D/R1E (see attached map).

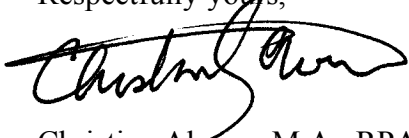
A cultural resource literature review and records search conducted at the Northwest Information Center (NWIC) housed at Sonoma State University, indicates that no less than 150 cultural resource studies have been conducted within a one-mile radius of the Project area; at least ten of these studies include portions or all of the Project area. The records search also indicated that no prehistoric or historical archaeological resources have been recorded within a half-mile radius of the Project area. A total of 29 historical built resources have been previously recorded within a half-mile radius of the Project area, however none of these resources are located within the Project area.

As part of the cultural resource investigation of the Project area, PaleoWest requested a search of the Native American Heritage Commission's (NAHC's) *Sacred Lands File* on June 15, 2018. The NAHC responded on June 27, 2018 indicating that no Native American cultural resources were identified within the Project area. However, should your records show that cultural properties exist within or near the Project area shown on the enclosed map, please contact me at (925)253-9070 or via e-mail at [calonso@paleowest.com](mailto:calonso@paleowest.com). I will contact you with a follow-up phone call or email if I do not hear from you.

Your comments are very important to us, and to the successful completion of this Project. I look forward to hearing from you in the near future. Thank you, in advance, for taking the time to review this request.



Respectfully yours,

A handwritten signature in black ink, appearing to read 'Christina Alonso', written over a horizontal line.

Christina Alonso, M.A., RPA  
Senior Archaeologist  
PaleoWest Archaeology

Sample



## Iron Horse Trail

Table #1. Record of Native American Contacts and Comments

Native American Contact	Date of Notification Letter	Date of Phone Contact	
Katherine Erolinda Perez, Chairperson North Valley Yokuts Tribe P.O. Box 717 Linden, CA 95236 209-887-3415 canutes@verizon.net	7/12/18	7/26/18	She mentioned that the trails her tribe made were often used as lines for the railroads. She believes there may be sites located along the railroad. She recommends that the project be monitored by a Native American monitor (Northern Valley Yokut). Please send final report with recommendations Kathy.
Tony Cerda Coastanoan Rumsen Carmel 244 E. 1 <sup>st</sup> Street Pomona, CA 91766 909-524-8040 cell 909-629-6081	7/12/18	7/26/18	Mailbox is full, send follow up email.
Irene Zwierlein, Chairperson Amah Mutsun Tribal Band of Mission San Juan Bautista 789 Canada Road Woodside, CA 94062 650-851-7489 (cell) 650-851-7747 (office) amahmutsuntribal@gmail.com	7/12/18	7/26/18	No answer, left message, sent follow up email
Ann Marie Sayers, Chairperson Indian Canyon Mutsun Band of Costanoan P.O. Box 28 Hollister, CA 95024 831-637-4238 ams@indiancanyon.org	7/12/18	7/26/18	Spoke with Anne Marie, she is unfamiliar with the area. As there are no recorded sites in ¼ mile she has no knowledge of sensitivity of area.
Rosemary Cambra, Chairperson Muwekma Ohlone Indian Tribe of the SF Bay Area P.O. Box 360791 Milpitas, CA 95036 408-314-1898 510-581-5194 muwekma@muwekma.org	7/12/18	7/26/18	No answer, mailbox is full, sent follow up email.
Andrew Galvan The Ohlone Indian Tribe P.O. Box 3152 Fremont, CA 94539 510-882-0527 cell 510-687-9393 fax chochenyo@aol.com	7/12/18	7/26/18	Sent follow up email





August 1, 2018

Andrew Galvan  
The Ohlone Indian Tribe  
P.O. Box 3388  
Fremont CA, 94539  
Email address: [chochenyo@aol.com](mailto:chochenyo@aol.com)

**Subject: Notification of Iron Horse Trail Bike/Pedestrian  
Overcrossing Project**

**Pursuant to Public Resources Code Section 21080.3.1 and 21080.3.2 (AB  
52)**

Dear Mr. Galvan:

This letter is formal notification of the City of Dublin's (City) proposed Iron Horse Trail Bike/Pedestrian Overcrossing Project, which is subject to compliance with the California Environmental Quality Act (CEQA). The City is the lead CEQA agency responsible for consulting with California Native American Tribes pursuant to Public Resources Codes Section 2108.3.1 and 21080.3.2 (AB 52). Accordingly, this letter provides a brief description of the proposed project, its location, and lead agency contact information. Pursuant to AB 52, the Ohlone Indian Tribe has 30 days to request in writing its desire to consult on this particular project. The request to consult must be received on or before **August 30, 2018**, and shall provide the name of the tribe's designated lead contact person. If the Ohlone Indian Tribe does not respond within the period defined above, or writes to decline consultation for the project, the City has no further obligation to consult on this project.

**Project Description**

The City of Dublin proposes to construct a grade-separated overcrossing at Dublin Boulevard, just north of the Dublin/Pleasanton BART Station, along the existing multi-use Iron Horse Trail (Enclosure 1). The overcrossing will span north to south over Dublin Boulevard and will provide an alternative to the existing at-grade crossing of the Iron Horse Trail where it meets Dublin Boulevard.

North of Dublin Boulevard, the overcrossing structure would be integrated into a community park constructed as part of the Dublin Crossing Specific Plan project. The overcrossing structure would gradually transition to at-grade conditions before re-connecting with the Iron Horse Trail north of Dublin Boulevard. South of Dublin Boulevard, the overcrossing would touch down within the Iron Horse Trail right-of-way and would include a graduated ramp for pedestrians and bicyclists to access the overcrossing.

**City Council**  
925.833.6650  
**City Manager**  
925.833.6650  
**Community Development**  
925.833.6610  
**Economic Development**  
925.833.6650  
**Finance/IT**  
925.833.6640  
**Fire Prevention**  
925.833.6606  
**Human Resources**  
925.833.6605  
**Parks & Community Services**  
925.833.6645  
**Police**  
925.833.6670  
**Public Works**  
925.833.6630

100 Civic Plaza  
Dublin, CA 94568  
P 925.833.6650  
F 925.833.6651  
[www.dublin.ca.gov](http://www.dublin.ca.gov)



## **Project Location**

The Project is located along the Iron Horse Trail near the intersection of Dublin Boulevard and Scarlett Drive in the city of Dublin, Alameda County, California (Enclosure 1). Specifically, the Project is located on the Livermore 7.5-minute quadrangle map within Section 6 of Township 3 South, Range 1 East.

## **Contact Information**

The City's lead contact for AB 52 Consultation on this project is:

Obaid U. Khan, P.E.

Transportation and Operations Manager

City of Dublin

100 Civic Plaza

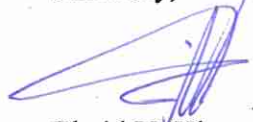
Dublin, CA 94568

The City of Dublin invites your participation in the consultation process for the project. If the Ohlone Indian Tribe wishes to consult with the City regarding the Iron Horse Trail Bike/Pedestrian Overcrossing Project, please indicate in writing via letter addressed to Obaid Khan, Transportation and Operations Manager, the lead contact, at the address provided above within 30 days (on or before **August 30, 2018**, and provide the name of the tribe's designated lead contact person. We would appreciate any responses to this invitation at your earliest convenience.

General comments regarding the project may also be submitted to the City via email at [Obaid.Khan@dublin.ca.gov](mailto:Obaid.Khan@dublin.ca.gov). The transmittal of confidential information through email, such as the location of a cultural resource, is not recommended. If you wish to transmit confidential information, we recommend that you notify the City via formal letter, in person, or over the phone, as the confidentiality of information transmitted via email cannot be guaranteed.

We appreciate your interest in the consultation process for the project and we hope that you will contact Obaid Khan if you have any additional questions or if we may be of further service.

Sincerely,



Obaid U. Khan, P.E.

Transportation and Operations Manager

City of Dublin

Enclosures:

1. Project Location





August 1, 2018

Rosemary Cambra, Chairperson  
Muwekma Ohlone Indian Tribe of the SF Bay Area  
P.O. Box 360791  
Milpitas, CA 95036  
Email address: [muwekma@muwekma.org](mailto:muwekma@muwekma.org)

**Subject: Notification of Iron Horse Trail Bike/Pedestrian  
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**City Council**  
925.833.6650  
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**Economic Development**  
925.833.6650  
**Finance/IT**  
925.833.6640  
**Fire Prevention**  
925.833.6606  
**Human Resources**  
925.833.6605  
**Parks & Community Services**  
925.833.6645  
**Police**  
925.833.6670  
**Public Works**  
925.833.6630

100 Civic Plaza  
Dublin, CA 94568  
P 925.833.6650  
F 925.833.6651  
[www.dublin.ca.gov](http://www.dublin.ca.gov)



## **Project Location**

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## **Contact Information**

The City's lead contact for AB 52 Consultation on this project is:

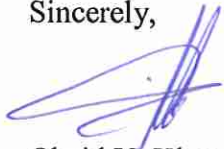
Obaid U. Khan, P.E.  
Transportation and Operations Manager  
City of Dublin  
100 Civic Plaza  
Dublin, CA 94568

The City of Dublin invites your participation in the consultation process for the project. If the Muwekma Ohlone Indian Tribe of the SF Bay Area wishes to consult with the City regarding the Iron Horse Trail Bike/Pedestrian Overcrossing Project, please indicate in writing via letter addressed to Obaid Khan, Transportation and Operations Manager, the lead contact, at the address provided above within 30 days (on or before **August 30, 2018**), and provide the name of the tribe's designated lead contact person. We would appreciate any responses to this invitation at your earliest convenience.

General comments regarding the project may also be submitted to the City via email at [Obaid.Khan@dublin.ca.gov](mailto:Obaid.Khan@dublin.ca.gov). The transmittal of confidential information through email, such as the location of a cultural resource, is not recommended. If you wish to transmit confidential information, we recommend that you notify the City via formal letter, in person, or over the phone, as the confidentiality of information transmitted via email cannot be guaranteed.

We appreciate your interest in the consultation process for the project and we hope that you will contact Obaid Khan if you have any additional questions or if we may be of further service.

Sincerely,



Obaid U. Khan, P.E.  
Transportation and Operations Manager  
City of Dublin

Enclosures:

1. Project Location





August 1, 2018

Randy Yonemura, Cultural Committee Chair  
Ione Band of Miwok Indians  
P.O. Box 699 / 9252 Bush St. Suite 2  
Plymouth, CA 95669  
Email address: [randy\\_yonemura@yahoo.com](mailto:randy_yonemura@yahoo.com)

**Subject: Notification of Iron Horse Trail Bike/Pedestrian  
Overcrossing Project**

**Pursuant to Public Resources Code Section 20180.3.1 and 21080.3.2 (AB 52)**

Dear Mr. Yonemura:

This letter is formal notification of the City of Dublin's (City) proposed Iron Horse Trail Bike/Pedestrian Overcrossing Project, which is subject to compliance with the California Environmental Quality Act (CEQA). The City is the lead CEQA agency responsible for consulting with California Native American Tribes pursuant to Public Resources Codes Section 2108.3.1 and 21080.3.2 (AB 52). Accordingly, this letter provides a brief description of the proposed project, its location, and lead agency contact information. Pursuant to AB 52, the Ione Band of Miwok Indians has 30 days to request in writing its desire to consult on this particular project. The request to consult must be received on or before **August 30, 2018**, and shall provide the name of the tribe's designated lead contact person. If the Ione Band of Miwok Indians does not respond within the period defined above, or writes to decline consultation for the project, the City has no further obligation to consult on this project.

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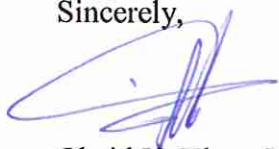
Obaid U. Khan, P.E.  
Transportation and Operations Manager  
City of Dublin  
100 Civic Plaza  
Dublin, CA 94568

The City of Dublin invites your participation in the consultation process for the project. If the Lone Band of Miwok Indians wishes to consult with the City regarding the Iron Horse Trail Bike/Pedestrian Overcrossing Project, please indicate in writing via letter addressed to Obaid Khan, Transportation and Operations Manager, the lead contact, at the address provided above within 30 days on or before **August 30, 2018**, and provide the name of the tribe's designated lead contact person. We would appreciate any responses to this invitation at your earliest convenience.

General comments regarding the project may also be submitted to the City via email at [Obaid.Khan@dublin.ca.gov](mailto:Obaid.Khan@dublin.ca.gov). The transmittal of confidential information through email, such as the location of a cultural resource, is not recommended. If you wish to transmit confidential information, we recommend that you notify the City via formal letter, in person, or over the phone, as the confidentiality of information transmitted via email cannot be guaranteed.

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Sincerely,



Obaid U. Khan, P.E.  
Transportation and Operations Manager  
City of Dublin

Enclosures:

1. Project Location





August 1, 2018

Irene Zwierlein, Chairperson  
Amah Mutsun Tribal Bank of Mission San Juan Bautista  
789 Canada Road  
Woodside, CA 94062  
Email address: [amahmutsuntribal@gmail.com](mailto:amahmutsuntribal@gmail.com)

**Subject: Notification of Iron Horse Trail Bike/Pedestrian  
Overcrossing Project**

**Pursuant to Public Resources Code Section 21080.3.1 and 21080.3.2 (AB 52)**

Dear Ms. Zwierlein:

This letter is formal notification of the City of Dublin's (City) proposed Iron Horse Trail Bike/Pedestrian Overcrossing Project, which is subject to compliance with the California Environmental Quality Act (CEQA). The City is the lead CEQA agency responsible for consulting with California Native American Tribes pursuant to Public Resources Codes Section 2108.3.1 and 21080.3.2 (AB 52). Accordingly, this letter provides a brief description of the proposed project, its location, and lead agency contact information. Pursuant to AB 52, the Amah Mutsun Tribal Bank of Mission San Juan Bautista has 30 days to request in writing its desire to consult on this particular project. The request to consult must be received on or before **August 30, 2018**, and shall provide the name of the tribe's designated lead contact person. If the Amah Mutsun Tribal Bank of Mission San Juan Bautista does not respond within the period defined above, or writes to decline consultation for the project, the City has no further obligation to consult on this project.

**Project Description**

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**City Council**  
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Dublin, CA 94568  
P 925.833.6650  
F 925.833.6651  
[www.dublin.ca.gov](http://www.dublin.ca.gov)



## **Project Location**

The Project is located along the Iron Horse Trail near the intersection of Dublin Boulevard and Scarlett Drive in the city of Dublin, Alameda County, California (Enclosure 1). Specifically, the Project is located on the Livermore 7.5-minute quadrangle map within Section 6 of Township 3 South, Range 1 East.

## **Contact Information**

The City's lead contact for AB 52 Consultation on this project is:

Obaid U. Khan, P.E.

Transportation and Operations Manager

City of Dublin

100 Civic Plaza

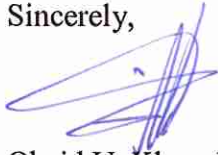
Dublin, CA 94568

The City of Dublin invites your participation in the consultation process for the project. If the Amah Mutsun Tribal Bank of Mission San Juan Bautista wishes to consult with the City regarding the Iron Horse Trail Bike/Pedestrian Overcrossing Project, please indicate in writing via letter addressed to Obaid Khan, Transportation and Operations Manager, the lead contact, at the address provided above within 30 days on or before **August 30, 2018**, and provide the name of the tribe's designated lead contact person. We would appreciate any responses to this invitation at your earliest convenience.

General comments regarding the project may also be submitted to the City via email at [Obaid.Khan@dublin.ca.gov](mailto:Obaid.Khan@dublin.ca.gov). The transmittal of confidential information through email, such as the location of a cultural resource, is not recommended. If you wish to transmit confidential information, we recommend that you notify the City via formal letter, in person, or over the phone, as the confidentiality of information transmitted via email cannot be guaranteed.

We appreciate your interest in the consultation process for the project and we hope that you will contact Obaid Khan if you have any additional questions or if we may be of further service.

Sincerely,



Obaid U. Khan, P.E.

Transportation and Operations Manager

City of Dublin

Enclosures:

1. Project Location





August 1, 2018

Randy Yonemura, Cultural Committee Chair  
Ione Band of Miwok Indians  
P.O. Box 699 / 9252 Bush St. Suite 2  
Plymouth, CA 95669  
Email address: [randy\\_yonemura@yahoo.com](mailto:randy_yonemura@yahoo.com)

**Subject: Notification of Iron Horse Trail Bike/Pedestrian  
Overcrossing Project**

**Pursuant to Public Resources Code Section 20180.3.1 and 21080.3.2 (AB  
52)**

Dear Mr. Yonemura:

This letter is formal notification of the City of Dublin's (City) proposed Iron Horse Trail Bike/Pedestrian Overcrossing Project, which is subject to compliance with the California Environmental Quality Act (CEQA). The City is the lead CEQA agency responsible for consulting with California Native American Tribes pursuant to Public Resources Codes Section 2108.3.1 and 21080.3.2 (AB 52). Accordingly, this letter provides a brief description of the proposed project, its location, and lead agency contact information. Pursuant to AB 52, the Ione Band of Miwok Indians has 30 days to request in writing its desire to consult on this particular project. The request to consult must be received on or before **August 30, 2018**, and shall provide the name of the tribe's designated lead contact person. If the Ione Band of Miwok Indians does not respond within the period defined above, or writes to decline consultation for the project, the City has no further obligation to consult on this project.

**Project Description**

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## **Project Location**

The Project is located along the Iron Horse Trail near the intersection of Dublin Boulevard and Scarlett Drive in the city of Dublin, Alameda County, California (Enclosure 1). Specifically, the Project is located on the Livermore 7.5-minute quadrangle map within Section 6 of Township 3 South, Range 1 East.

## **Contact Information**

The City's lead contact for AB 52 Consultation on this project is:

Obaid U. Khan, P.E.

Transportation and Operations Manager

City of Dublin

100 Civic Plaza

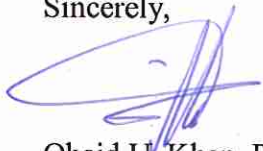
Dublin, CA 94568

The City of Dublin invites your participation in the consultation process for the project. If the Ione Band of Miwok Indians wishes to consult with the City regarding the Iron Horse Trail Bike/Pedestrian Overcrossing Project, please indicate in writing via letter addressed to Obaid Khan, Transportation and Operations Manager, the lead contact, at the address provided above within 30 days on or before **August 30, 2018**, and provide the name of the tribe's designated lead contact person. We would appreciate any responses to this invitation at your earliest convenience.

General comments regarding the project may also be submitted to the City via email at [Obaid.Khan@dublin.ca.gov](mailto:Obaid.Khan@dublin.ca.gov). The transmittal of confidential information through email, such as the location of a cultural resource, is not recommended. If you wish to transmit confidential information, we recommend that you notify the City via formal letter, in person, or over the phone, as the confidentiality of information transmitted via email cannot be guaranteed.

We appreciate your interest in the consultation process for the project and we hope that you will contact Obaid Khan if you have any additional questions or if we may be of further service.

Sincerely,



Obaid U. Khan, P.E.

Transportation and Operations Manager

City of Dublin

Enclosures:

1. Project Location





August 1, 2018

Katherine Perez, Chairperson  
North Valley Yokuts Tribe  
P.O. Box 717  
Linden, CA 95236  
Email address: [canutes@verizon.net](mailto:canutes@verizon.net)

**Subject: Notification of Iron Horse Trail Bike/Pedestrian  
Overcrossing Project**

**Pursuant to Public Resources Code Section 20180.3.1 and 21080.3.2 (AB 52)**

Dear Ms. Perez:

This letter is formal notification of the City of Dublin's (City) proposed Iron Horse Trail Bike/Pedestrian Overcrossing Project, which is subject to compliance with the California Environmental Quality Act (CEQA). The City is the lead CEQA agency responsible for consulting with California Native American Tribes pursuant to Public Resources Codes Section 2108.3.1 and 21080.3.2 (AB 52). Accordingly, this letter provides a brief description of the proposed project, its location, and lead agency contact information. Pursuant to AB 52, the North Valley Yokuts Tribe has 30 days to request in writing its desire to consult on this particular project. The request to consult must be received on or before **August 30, 2018**, and shall provide the name of the tribe's designated lead contact person. If the North Valley Yokuts Tribe does not respond within the period defined above, or writes to decline consultation for the project, the City has no further obligation to consult on this project.

**Project Description**

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## **Project Location**

The Project is located along the Iron Horse Trail near the intersection of Dublin Boulevard and Scarlett Drive in the city of Dublin, Alameda County, California (Enclosure 1). Specifically, the Project is located on the Livermore 7.5-minute quadrangle map within Section 6 of Township 3 South, Range 1 East.

## **Contact Information**

The City's lead contact for AB 52 Consultation on this project is:

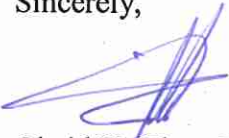
Obaid U. Khan, P.E.  
Transportation and Operations Manager  
City of Dublin  
100 Civic Plaza  
Dublin, CA 94568

The City of Dublin invites your participation in the consultation process for the project. If the North Valley Yokuts Tribe wishes to consult with the City regarding the Iron Horse Trail Bike/Pedestrian Overcrossing Project, please indicate in writing via letter addressed to Obaid Khan, Transportation and Operations Manager, the lead contact, at the address provided above within 30 days on or before **August 30, 2018**, and provide the name of the tribe's designated lead contact person. We would appreciate any responses to this invitation at your earliest convenience.

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We appreciate your interest in the consultation process for the project and we hope that you will contact Obaid Khan if you have any additional questions or if we may be of further service.

Sincerely,



Obaid U. Khan, P.E.  
Transportation and Operations Manager  
City of Dublin

Enclosures:

1. Project Location





August 1, 2018

Michael Mirelez, Cultural Resource Coordinator  
Torres Martinez Desert Cahuilla Indians  
P.O. Box 1160  
Thermal, CA 92274

**Subject: Notification of Iron Horse Trail Bike/Pedestrian  
Overcrossing Project**

**Pursuant to Public Resources Code Section 20180.3.1 and 21080.3.2 (AB 52)**

Dear Mr. Mirelez:

This letter is formal notification of the City of Dublin's (City) proposed Iron Horse Trail Bike/Pedestrian Overcrossing Project, which is subject to compliance with the California Environmental Quality Act (CEQA). The City is the lead CEQA agency responsible for consulting with California Native American Tribes pursuant to Public Resources Codes Section 2108.3.1 and 21080.3.2 (AB 52). Accordingly, this letter provides a brief description of the proposed project, its location, and lead agency contact information. Pursuant to AB 52, the Torres Martinez Desert Cahuilla Indians has 30 days to request in writing its desire to consult on this particular project. The request to consult must be received on or before **August 30, 2018**, and shall provide the name of the tribe's designated lead contact person. If the Torres Martinez Desert Cahuilla Indians does not respond within the period defined above, or writes to decline consultation for the project, the City has no further obligation to consult on this project.

**Project Description**

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## **Project Location**

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## **Contact Information**

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City of Dublin

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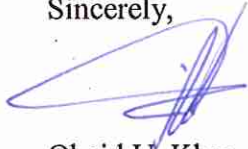
Dublin, CA 94568

The City of Dublin invites your participation in the consultation process for the project. If the Torres Martinez Desert Cahuilla Indians wishes to consult with the City regarding the Iron Horse Trail Bike/Pedestrian Overcrossing Project, please indicate in writing via letter addressed to Obaid Khan, Transportation and Operations Manager, the lead contact, at the address provided above within 30 days on or before **August 30, 2018**, and provide the name of the tribe's designated lead contact person. We would appreciate any responses to this invitation at your earliest convenience.

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We appreciate your interest in the consultation process for the project and we hope that you will contact Obaid Khan if you have any additional questions or if we may be of further service.

Sincerely,



Obaid U. Khan, P.E.

Transportation and Operations Manager

City of Dublin

Enclosures:

1. Project Location





August 1, 2018

Don Hankins, President  
California Indian Water Commission  
P.O. Box 627  
Forest Ranch, CA 95942

**Subject: Notification of Iron Horse Trail Bike/Pedestrian  
Overcrossing Project**

**Pursuant to Public Resources Code Section 21080.3.1 and 21080.3.2 (AB 52)**

Dear Mr. Hankins:

This letter is formal notification of the City of Dublin's (City) proposed Iron Horse Trail Bike/Pedestrian Overcrossing Project, which is subject to compliance with the California Environmental Quality Act (CEQA). The City is the lead CEQA agency responsible for consulting with California Native American Tribes pursuant to Public Resources Codes Section 2108.3.1 and 21080.3.2 (AB 52). Accordingly, this letter provides a brief description of the proposed project, its location, and lead agency contact information. Pursuant to AB 52, the California Indian Water Commission has 30 days to request in writing its desire to consult on this particular project. The request to consult must be received on or before **August 30, 2018**, and shall provide the name of the tribe's designated lead contact person. If the California Indian Water Commission does not respond within the period defined above, or writes to decline consultation for the project, the City has no further obligation to consult on this project.

### **Project Description**

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Transportation and Operations Manager

City of Dublin

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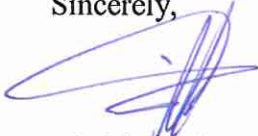
Dublin, CA 94568

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Sincerely,



Obaid U. Khan, P.E.

Transportation and Operations Manager

City of Dublin

Enclosures:

1. Project Location





August 1, 2018

Tony Cerda  
Coastanoan Rumsen Carmel Tribe  
244 E. 1<sup>st</sup> Street  
Pomona CA, 91766  
Email address: [rumsen@aol.com](mailto:rumsen@aol.com)

**Subject: Notification of Iron Horse Trail Bike/Pedestrian  
Overcrossing Project**

**Pursuant to Public Resources Code Section 20180.3.1 and 21080.3.2 (AB 52)**

Dear Mr. Cerda:

This letter is formal notification of the City of Dublin's (City) proposed Iron Horse Trail Bike/Pedestrian Overcrossing Project, which is subject to compliance with the California Environmental Quality Act (CEQA). The City is the lead CEQA agency responsible for consulting with California Native American Tribes pursuant to Public Resources Codes Section 2108.3.1 and 21080.3.2 (AB 52). Accordingly, this letter provides a brief description of the proposed project, its location, and lead agency contact information. Pursuant to AB 52, the Coastanoan Rumsen Carmel Tribe has 30 days to request in writing its desire to consult on this particular project. The request to consult must be received on or before **August 30, 2018**, and shall provide the name of the tribe's designated lead contact person. If the Coastanoan Rumsen Carmel Tribe does not respond within the period defined above, or writes to decline consultation for the project, the City has no further obligation to consult on this project.

**Project Description**

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## **Contact Information**

The City's lead contact for AB 52 Consultation on this project is:

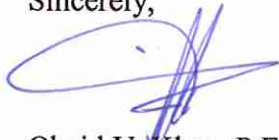
Obaid U. Khan, P.E.  
Transportation and Operations Manager  
City of Dublin  
100 Civic Plaza  
Dublin, CA 94568

The City of Dublin invites your participation in the consultation process for the project. If the Coastanoan Rumsen Carmel Tribe wishes to consult with the City regarding the Iron Horse Trail Bike/Pedestrian Overcrossing Project, please indicate in writing via letter addressed to Obaid Khan, Transportation and Operations Manager, the lead contact, at the address provided above within 30 days (on or before **August 30, 2018**), and provide the name of the tribe's designated lead contact person. We would appreciate any responses to this invitation at your earliest convenience.

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Sincerely,



Obaid U. Khan, P.E.  
Transportation and Operations Manager  
City of Dublin

Enclosures:

1. Project Location



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City, State, ZIP+4® **Tremont, CA 92274**

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

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**Appendix C**  
Survey Photographs





**Photo 1: Overview of proposed APE where it diverts from existing trail. View toward north-northwest.**



**Photo 2: Overview of Chabot Canal and multiple culverts, viewing northeast.**



**Photo 3: Overview of Iron Horse Trail from northwest portion of APE, viewing southeast.**





**Photo 4: Overview of survey area north of Dublin Blvd, viewing northwest.**



**Photo 5: Detail view of surface visibility (100%) in the survey area north of Dublin Blvd.**



**Photo 6: View of Iron Horse Trail from across Chabot Canal, view toward southwest.**





**Photo 7: Iron Horse Trail immediately north of Dublin Boulevard, viewing northwest.**



**Photo 8: Overview of project area south of Dublin Boulevard, viewing southeast.**



## **APPENDIX D**

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### **DCEIR Mitigation Measures**







## Summary of DCEIR Mitigation Measures that would Apply to the Overcrossing Project

The IS/Supplemental MND identifies the specific mitigation measures established in the DCEIR that would apply to the Overcrossing Project. The rationale and conditions that would trigger implementation are described in more detail in the IS/Supplemental MND text.

MM 3.2-1a: Implement Short-term Construction Best Management Practices. Prior to issuance of any Grading Permit, the Public Works Director and the Building Official shall confirm that the Grading Plan, Building Plans, and specifications stipulate that the following basic construction mitigation measures shall be implemented for all construction projects:

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas and unpaved access roads) shall be watered two times per day.
- All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
- All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All vehicle speeds on unpaved roads shall be limited to 15 mph.
- All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible.
- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
- All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.
- A publicly visible sign with the telephone number and person to contact at the lead agency regarding dust complaints shall be posted. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

MM 3.2-1b: Implement Additional Short-term Construction Best Management Practices. Prior to issuance of any Grading Permit, the Public Works Director and the Building Official shall confirm that the Grading Plan, Building Plans, and specifications stipulate that the following additional construction mitigation measures shall be implemented for all construction projects:

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas and unpaved access roads) shall be watered two times per day.
- All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
- All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All vehicle speeds on unpaved roads shall be limited to 15 mph.
- All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible.



- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
- All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.
- A publicly visible sign with the telephone number and person to contact at the lead agency regarding dust complaints shall be posted. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

**Additional Short-Term Construction Best Management.** Prior to issuance of any Grading Permit, the Public Works Director and the Building Official shall confirm that the Grading Plan, Building Plans, and specifications stipulate that the following additional construction mitigation measures shall be implemented for all construction projects:

- All excavation, grading, and/or demolition activities shall be suspended when winds (instantaneous gusts) exceed 25 mph.
- Wind breaks (e.g., trees, fences) shall be installed on the windward side(s) of actively disturbed areas of construction.
- Vegetative ground cover (e.g., fast-germinating native grass seed) shall be planted in disturbed areas as soon as possible and watered appropriately until vegetation is established.
- All trucks and equipment, including their tires, shall be washed off prior to leaving the site.
- Site accesses to a distance of 100 feet from the paved road shall be treated with a 6- to 12-inch compacted layer of wood chips, mulch, or gravel.
- Sandbags or other erosion control measures shall be installed to prevent silt runoff to public roadways from sites with a slope greater than one percent.
- The applicant shall reduce exhaust emissions during construction and, in particular, emissions of NO<sub>x</sub>, when using construction equipment and vehicles by implementing the following measures:
  - Require the use of diesel haul trucks (e.g., material delivery trucks and soil import/export) that meet EPA 2007 model year NO<sub>x</sub> emissions requirements
  - The following note shall be included on all grading plans: During project construction, all internal combustion engines/construction, equipment operating on the project area shall meet EPA-Certified Tier 3 emissions standards, or higher according to the following:
    - January 1, 2012, to December 31, 2014: Off-road diesel-powered construction equipment greater than 50 horsepower (hp) shall meet Tier 3 off-road emissions standards. Alternatively, construction equipment shall be outfitted with BACT devices certified by CARB. Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations.
    - Post-January 1, 2015: Off-road diesel-powered construction equipment greater than 50 hp shall meet the Tier 4 emission standards, where available. Alternatively, construction



equipment shall be outfitted with BACT devices certified by CARB. Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations.

- The contractor and applicant, if the applicant's equipment is used, shall maintain construction equipment engines by keeping them tuned and regularly serviced to minimize exhaust emissions.
- Utilize existing power sources (i.e., power poles) when available. This measure would minimize the use of higher polluting gas or diesel generators.
- Construction-related equipment, including heavy-duty equipment, motor vehicles, and portable equipment, shall be turned off when not in use for more than five minutes.
- Use low VOC (i.e., ROG) coatings beyond the local requirements (i.e., Regulation 8, Rule 3: Architectural Coatings).
- Require that all construction equipment, diesel trucks, and generators be equipped with Best Available Control Technology for emission reductions of NOx and PM.

MM 3.3-2a: Conduct a Floristic Survey and Consult with CDFG and USFWS if State or Federally Listed Plants are Found and Comply with Incidental Take Permits. The project applicant shall retain a qualified botanist to conduct rare plant surveys within the construction zone for Congdon's tarplant or other species with potential habitat within the project area during the appropriate time of year in accordance with agency protocols.

MM 3.3-3a: Conduct a Burrowing Owl Survey and Impact Assessment. The project applicant shall retain a qualified biologist to conduct a California burrowing owls surveys and impact assessment following the 2012 California Department of Fish and Game Staff Report on Burrowing Owl Mitigation (CDFW 2012) or as updated at the time of the implementation of the proposed project.

MM 3.4-2: Halt Work/Archaeological Evaluation/Site-Specific Mitigation. If any potential archaeological, pre-historic or cultural artifacts are encountered during site grading or other construction activities, all ground disturbance within 50 feet of the discovery shall be halted until a qualified archaeologist can identify and evaluate the resource(s) in accordance with State CEQA Guidelines 15064.5(f).

MM 3.4-3: Halt Work/Paleontological Evaluation/Site-Specific Mitigation. If paleontological resources are encountered during subsurface construction activities, all work within 50 feet of the discovery shall be redirected until a qualified paleontologist can evaluate the finds. If the paleontological resources are found to be significant, they shall be avoided by project construction activities and recovered by a qualified paleontologist.

MM 3.4-4: Halt Work/Coroner's Evaluation/Native American Heritage Consultant/Compliance with Most Likely Descendent Recommendations. In the event that human remains are encountered during grading and site preparation activities, all ground-disturbing work within 50 feet of the remains shall cease immediately and a qualified archaeologist shall notify the Office of the Alameda County Coroner and advise that office as to whether the remains are likely to be Native American. If determined to be Native American, the Alameda County Coroner's Office shall notify the Native American Heritage Commission of the find, which in turn will then appoint a "Most Likely Descendent. (MLD)."



MM 3.5-3: Preparation of Design-Level Geotechnical Report. Future development within the project area shall consult with a registered geotechnical engineer to prepare a design level geotechnical report that incorporates the recommendations in the preliminary geotechnical investigation by Berlogar, Stevens and Associates (March 2012). The design level geotechnical report shall address site preparation and grading (including measures to address potential liquefaction and expansive soils), building foundations, CBC seismic design parameters, and preliminary pavement sections. This report shall be submitted in conjunction with building permits applications and shall be reviewed and approved by the City.

MM 3.10-1b: Construction Routes Less Disruptive to Sensitive Receptors. Construction trucks shall utilize a route that is least disruptive to sensitive receptors, preferably major roadways (Interstate 580, Interstate 680, Dublin Boulevard, Dougherty Road, and Arnold Road). Construction trucks should, to the extent practical, avoid the weekday and Saturday a.m. and p.m. peak hours (7:00 a.m. to 9:00 a.m. and 4:00 p.m. to 6:00 p.m.).

MM 3.12-12: Restrict Lane Closures Along Dublin Boulevard and Arnold Road to Off-Peak Hours. During project construction, the lane closures along Dublin Boulevard and Arnold Road shall be restricted to off-peak hours to the greatest extent feasible. In addition, traffic handling plans shall be prepared for construction work in the public right-of-way in accordance with current California Manual on Uniform Traffic Control Devices (MUTCD) standards and guidelines.