



CITY COUNCIL AGENDA REPORT

Meeting Date: January 16, 2020
From: Karen Kinser, Deputy Director of Public Works
Subject: Adopt Mitigated Negative Declaration for the Guadalupe Channel Erosion Control Project

Community Goal/Result

Ecological Sustainability - Brisbane will be a leader in setting policies and practicing service delivery innovations that promote ecological sustainability

Purpose

The project will repair the erosion at the turns in the Guadalupe Channel east of Bayshore Blvd. to the Machinery Road bridge and remove the sediment in the mixing basin west of and the culverts under Bayshore Blvd., which empty into the channel and the lagoon.

Recommendation

1. Adopt the Mitigated Negative Declaration (MND) and direct staff to file a Notice of Determination
2. Approve the Mitigation Monitoring and Reporting Program (MMRP); and
3. Approve the project as described therein.

Background

In June of 2018, Council approved a contract with consultant Wood Rodgers and their subconsultants for the project design and environmental review and permitting services.

Discussion

Notice of the availability of the Draft MND and the opportunity to comment was provided to the public and to agencies having jurisdiction during the 30-day review period in compliance with the California Environmental Quality Act (CEQA). Notice was provided by direct mailing to property owners within 300 ft. of the project area and posting at the site. During the 30-day public review period for the Draft EIR, one written comment was received.

Final MND: Pursuant to CEQA, a Final MND (attached) was prepared to document and respond to all comments received during the public comment period. These responses are summarized in the Response to Comments memo. The comments and responses to comments did not alter any of the environmental impacts or significant conclusions of the Draft MND.

Summary of Project Impacts: A full summary of project environmental impacts and recommended mitigation measures is contained in the Final MND.

The MND analysis contained in the Initial Study (IS) determined that there are ***no impacts*** or ***less-than-significant impacts*** to the following resource areas: Aesthetics, Agriculture and Forestry Resources; Energy; Greenhouse Gas Emissions; Hazards and Hazardous Materials; Land Use and Planning Policy; Mineral Resources; Population and Housing; Public Services; Recreation; Transportation; Utilities and Service Systems; and Wildfire.

The Draft IS/MND analysis found that there are ***potentially significant impacts*** to the following resource areas, but that impacts would be reduced to ***less than significant level with mitigation***: Air Quality; Biological Resources; Cultural Resources; Geology, Soils and Seismicity; Hydrology and Water Quality; Noise; and Tribal Cultural Resources. Mitigation actions are detailed in the MMRP.

No impacts were determined to be ***significant and unavoidable***.

The approved project description will be incorporated into a final set of plans and specifications that will be brought to Council for approval at a later date.

Fiscal Impact

There is no fiscal impact to adoption of the MND, and approval of the MMRP and the project.

Measure of Success An improved channel with native, non-invasive plants and trees having minimal erosion, and the removal of sediment in the mixing basin west of and the culverts under Bayshore Blvd. that empty into the channel and the lagoon.

Attachments

1. Final Mitigated Negative Declaration (MND)
2. Exhibit A - Initial Study and Appendices A thru E
3. Exhibit B - Mitigation Monitoring and Reporting Program
4. Exhibit C - Response to Comments memo



Karen Kinser, Deputy Director of Public Works



Randy Breault, Director of Public Works/City Engineer



Clay Holstine, City Manager

A copy of the exhibits provided to the City Council and City Manager in connection with this agenda item is available for public inspection and copying at 50 Park Place, City of Brisbane Public Works Dept., Brisbane, CA, 94005, (415) 508-2130. Copies of these documents are also available for review at the Brisbane Public Library.

Guadalupe Channel Erosion Control Project

MITIGATED NEGATIVE DECLARATION (MND)

January 2020

Pursuant to the California Environmental Quality Act (CEQA)
Division 13, Public Resources Code

PROJECT DESCRIPTION

The Guadalupe Channel Erosion Control Project (project) includes bank stabilization and erosion-control improvements to the open channel portions of Guadalupe Channel in the City of Brisbane (City). These improvements would protect approximately 400 linear feet of watercourse channel between a culvert beneath the Bayshore Boulevard/Valley Drive intersection and the Machinery Road bridge structure immediately south of the Brisbane Fire Department Station at 3445 Bayshore Boulevard. The purpose of this project is to prevent vegetation falling into the Guadalupe Channel, which could obstruct flow and expose slopes to erosion. Bank grading would flatten the sides of the channel, which have been incised to near vertical in some locations. Project construction would commence in summer 2020 and would last approximately four months.

DETERMINATION

A Mitigated Negative Declaration (MND) is proposed by the City of Brisbane for the project. The Initial Study and supporting documents (**Exhibit A**) have been prepared to determine if the project would result in potentially significant or significant impacts to the environment. The mitigation measures identified in the Initial Study are listed in **Table 1** below. A Mitigation Monitoring and Reporting Program (MMRP) is included as **Exhibit B**. The public review period occurred from October 28, 2019 to November 27, 2019 and one comment letter was received. Responses to this comment letter are provided in the Guadalupe Channel Erosion Control Project Response to Public Comments memorandum (**Exhibit C**).

On the basis of the Initial Study and the whole record, it has been determined that the proposed action, with the incorporation of the mitigation measures described below, will not have a significant effect on the environment. The supporting technical reports that constitute the record of proceedings, upon which this determination is made, are available for public review at the City of Brisbane Public Works Department office at 50 Park Place, Brisbane, CA 94005, between 8:00 am and 5:00 pm, Monday through Friday.



Karen Kinser
Deputy Director of Public Works

January 7, 2020

Date

Table 1 - Summary of Project Impacts

Environmental Factor	Mitigation Measures	Significance After Mitigation
Air Quality	<p>Mitigation Measure AQ-1: During any construction period ground disturbance, the applicant shall ensure that the Project contractor implement measures to control dust and exhaust.</p> <ol style="list-style-type: none"> 1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day. 2. All haul trucks transporting soil, sand, or other loose material off-site shall be covered. 3. 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. 4. All vehicle speeds on unpaved roads shall be limited to 15 miles per hour (mph). 5. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used. 6. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 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. 7. 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. 8. Post a publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The BAAQMD's phone number shall also be visible to ensure compliance with applicable regulations. 	Less than Significant

Environmental Factor	Mitigation Measures	Significance After Mitigation
Biological Resources	<p>Mitigation Measure BIO-1: Prior to dewatering activities in Guadalupe Channel, qualified biologists will use nets to exclude fish from the construction area. During the low end of a falling tide, a block net would be placed at the upper end of the reach to be dewatered. Subsequently, qualified biologists would walk from the upper to lower end of the reach with a net stretched across the channel to encourage fish to move out of the construction area. When the lower end of the construction area is reached, a second block net would be installed to isolate the construction reach. This procedure would be repeated a minimum of three times per dewatered tidal reach to ensure that no fish, including Central California coast steelhead or longfin smelt, remain within the construction area. Mesh size would not exceed 9.5 millimeters to ensure that longfin smelt, as well as all other native fish that may be present in the channel, are adequately excluded from this area. These nets would be maintained in place until the coffer dam has been constructed to isolate the in-channel work area from areas in which fish occur.</p>	Less than Significant
Biological Resources	<p>Mitigation Measure BIO-2: To the extent feasible, construction activities shall be scheduled to avoid the nesting season. If construction activities are scheduled to take place outside the nesting season, all impacts on nesting birds protected under the MBTA and California Fish and Game Code will be avoided. The nesting season for most birds in San Mateo County extends from February 1 through August 31.</p> <p>If it is not possible to schedule construction activities between September 1 and January 31, then preconstruction surveys for nesting birds shall be conducted by a qualified ornithologist to ensure that no nests will be disturbed during project implementation. These surveys shall be conducted no more than seven days prior to the initiation of construction activities. During this survey, the ornithologist would inspect all trees and other potential nesting habitats (e.g., trees, shrubs, ruderal grasslands, buildings) in and immediately adjacent to the impact areas for nests. If an active nest is found sufficiently close to work areas to be disturbed by these activities, the ornithologist would determine the extent of a construction-free buffer zone to be established around the nest (typically 300 feet for raptors and 100 feet for other species), to ensure that no nests of species protected by the MBTA and California Fish and Game Code would be disturbed during project implementation.</p> <p>If construction activities cannot be initiated until after the start of the nesting season, all potential nesting substrates (e.g., bushes, trees, grasses, and other vegetation) scheduled to be removed by the project may be removed prior to the start of the nesting season (e.g., prior to February 1). This would preclude the initiation of nests in this vegetation, and prevent the potential delay of the project due to the presence of active nests in these substrates.</p>	Less than Significant

Environmental Factor	Mitigation Measures	Significance After Mitigation
Biological Resources	<p>Mitigation Measure BIO-3: All disturbed upland and riparian soils would be stabilized and planted with a native seed mix from seed sourced from local genotypes following construction. All straw used as erosion control materials for the project would be certified weed-free. The removed vegetation, much of which is invasive, would be collected and completely removed from the project site. This material would be disposed of in a legally operating landfill so that propagules are not spread to other areas. All equipment used to remove project vegetation would be washed prior to use on another project site.</p>	Less than Significant
Cultural Resources	<p>Mitigation Measure CUL-1: If historic or archaeological materials are discovered during ground disturbing activities, project construction would cease within a 50-foot radius of the discovery in order to proceed with the testing and mitigation required under Section 7050.5(b) of the California Health and Safety Code and Section 5097.94 of the Public resources Code of the State of California. The State Historic Preservation Officer would be contacted as soon as possible. Construction in the affected area would not resume until the regulations of the Advisory council on Historic Preservation (36 CFR Part 800) have been satisfied.</p>	Less than Significant
Cultural Resources	<p>Mitigation Measure CUL-2: In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the human remains are discovered has determined, in accordance with Chapter 10 (commencing with Section 27460) of Part 3 of Division 2 of Title 3 of the Government Code, that the remains are not subject to the provisions of Section 27492 of the Government Code or any other related provisions of law concerning investigation of the circumstances, manner and cause of death, and the recommendations concerning treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative, in the manner provided in Section 5097.94 of the Public Resources Code.</p>	Less than Significant

Environmental Factor	Mitigation Measures	Significance After Mitigation
Geology and Soils	<p>Mitigation Measure GEO-1: Prior to approval of a grading plan, a licensed geotechnical or soil engineer shall prepare a design-level geotechnical report outlining site-specific construction methods and recommendations regarding grading activities, fill placement, soil corrosivity/expansion/erosion potential, compaction, foundation construction, drainage control (both surface and subsurface), and avoidance of settlement, liquefaction, differential settlement, and seismic hazards in accordance with current California Building Code requirements including Chapter 16, Section 1613. The report shall require that all subsurface improvements that include any materials susceptible to corrosive effects would be engineered in conformance with the most recently adopted California Building Code requirements including the use of engineered backfill. The report shall also include stability analyses of final design cut and fill slopes, including recommendations for avoidance of slope failure. The final grading plan shall be designed and constructed in accordance with requirements of the final design-level geotechnical investigation prior to building.</p>	Less than Significant
Geology and Soils	<p>Mitigation Measure GEO-2: Discovery of a paleontological specimen during any phase of the Project shall result in a work stoppage in the vicinity of the find until it can be evaluated by a professional paleontologist. Should loss or damage be detected, additional protective measures or further action (e.g., resource removal), as determined by a professional paleontologist, shall be implemented to mitigate the impact.</p>	Less than Significant
Hydrology and Water Quality	<p>Mitigation Measure HYDRO-1: Dewatering procedures would comply with applicable dewatering provisions typically included in a NPDES Permit, which require surface discharges to be clean or relatively pollutant-free. The project must meet effluent screening requirements for potentially harmful pollutants such as sediments, outlying pH levels, and harmful chemicals. Discharge and receiving water requirements, including water quality objectives, are defined in the Water Quality Control Plan for the San Francisco Bay Basin.</p>	Less than Significant

Environmental Factor	Mitigation Measures	Significance After Mitigation
Noise	<p>Mitigation Measure NOISE-1: The project shall comply with the following noise reduction measures during all construction-related activities under the supervision of a qualified acoustical consultant as a pre-requisite to issuance of a grading permit. These attenuation measures shall include all or any combination of the following control strategies:</p> <ul style="list-style-type: none"> • Limit standard construction activities to between 7:00 AM and 7:00 PM Monday through Friday and between 9:00 AM and 7:00 PM on weekends and holidays. No extreme noise-generating activities would be allowed on weekends and holidays; • Equipment and trucks used for construction shall use the best available noise control techniques (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures, and acoustically attenuating shields or shrouds); • Impact tools (e.g., jack hammers, pavement breakers, and rock drills) used for construction shall be hydraulically or electrically powered wherever possible to avoid noise associated with compressed air exhaust from pneumatically powered tools. Where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used; this muffler can lower noise levels from the exhaust by up to about 10 dBA. External jackets on the tools themselves shall be used where feasible; this could achieve a reduction of 5 dBA. Quieter procedures, such as use of drills rather than impact tools, shall be used. Individual pieces of construction equipment are prohibited from operating at a noise level in excess of 83 dBA at a distance of 25 feet from the equipment or operating such that the noise level at any point beyond the property line of the project site exceeds 86 dBA. 	Less than Significant

Guadalupe Channel Erosion Control Project



ER-01-19

July 2019

Prepared for: City of Brisbane



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Appendix A: Habitat Maintenance and Monitoring Plan

Appendix B: California Emissions Estimator Model

Appendix C: Biological Resources Report

Appendix D: California Historical Resources Information System Records Search

Appendix E: NAHC Sacred Lands File Request Results

1.0 PROJECT INFORMATION

1. Case Number(s):	ER-1-19
2. Project Title:	Guadalupe Channel Erosion Control Project
3. Lead Agency:	City of Brisbane Public Works Department 50 Park Place Brisbane, CA, 94005
4. Contact Person:	Karen Kinser, Deputy Director of Public Works (415) 508-2133 kkinser@brisbaneca.org
5. Project Location:	Approximately 400 linear feet of the Guadalupe Channel, from the Bayshore Boulevard/Valley Drive intersection to the Machinery Road bridge structure.
6. Property Owner/Project Applicant:	City of Brisbane
7. General Plan Designation:	Public Facilities and Parks
8. Zoning:	C-1 Commercial Mixed-Use District
9. Existing Land Use:	Vacant
11. Site Topography:	Flat, with sloped banks that rise up to 15 feet from the Guadalupe Channel bottom.
12. Proposed Discretionary Action:	A decision to implement slope protection measures constitutes a discretionary action by the City of Brisbane.
13: Other Required Permits:	<ul style="list-style-type: none">• Section 404 Permit and Section 10 Letter of Permission – U.S. Army Corps of Engineers• Section 7 Consultation – National Marine Fisheries Service• 401 Water Quality Certification – Regional Water Quality Control Board• Lake and Streambed Alteration Agreement – California Department of Fish and Wildlife• Administrative Permit (Minor Permit) – San Francisco Bay Conservation and Development Commission

2.0 PROJECT DESCRIPTION

The Guadalupe Channel Erosion Control Project (project) includes bank stabilization and erosion-control improvements to the open channel portions of Guadalupe Channel in the City of Brisbane (City). These improvements would protect approximately 400 linear feet of watercourse channel between a culvert beneath the Bayshore Boulevard/Valley Drive intersection and the Machinery Road bridge structure immediately south of the Brisbane Fire Department Station at 3445 Bayshore Boulevard.

Guadalupe Channel is an eastward-flowing stream under the City's jurisdiction. This feature is located within the Guadalupe Valley Watershed, an approximately 1,700-acre basin that drains runoff eastward from San Bruno Mountain into the Brisbane Lagoon.¹ Guadalupe Channel's tributary sources (i.e., unnamed creeks and drainages) originate on the northeast slope of San Bruno Mountain, west of the City limits within the San Bruno Mountain State and County Park.² Upon exiting the San Bruno Mountain's steep eastern-facing hillsides, Guadalupe Channel travels east and underground through the heavily developed Guadalupe Valley, where it continues to collect runoff from unnamed drainages on the northern and southern slopes of the Guadalupe Valley.

Guadalupe Channel (**Figure 1**) emerges from below ground (daylights) east of Bayshore Boulevard within the project site limits. From east of a culvert beneath Bayshore Boulevard, Guadalupe Channel travels beneath the Machinery Road bridge structure and the Caltrain tracks before draining into Brisbane Lagoon. Between Bayshore Boulevard and the Machinery Road bridge structure, Guadalupe Channel banks are steep and unreinforced except for sheet piles that form the left bank along the channel bend east of Bayshore Boulevard. Tidal conditions also prevent vegetation from stabilizing the lower portion of the channel. Moderately high flow velocities through Guadalupe Channel can cut and erode the non-reinforced channel sides, especially where they are not protected by vegetation.³

The purpose of this project is to prevent vegetation falling into the Guadalupe Channel, which could obstruct flow and expose slopes to erosion. Bank grading would flatten the sides of the channel, which have been incised to near vertical in some locations. Most channel slopes would be regraded with a 2:1 slope ratio,⁴ except for the northern slope immediately east of the

¹Pacific Gas and Electric Company. 2002. Jefferson-Martin 230 kV Transmission Project: Figure 9-1, Major Surface Waterbodies and Watersheds. http://www.cpuc.ca.gov/Environment/info/aspen/jefferson_martin/pdf/9-1%20Base%2090000%20watershed.pdf.

²The Oakland Museum of California. 2007. Creek and Watershed Information Source: Guadalupe Valley Watershed. <http://explore.museumca.org/creeks/1600-RescGuadalupe.html>.

³Flow velocities of approximately seven feet per second can occur in this portion of Guadalupe Channel, with even higher velocities during high-flow/low tide conditions.

⁴i.e. two feet in horizontal distance for every one foot in vertical distance

Bayshore Boulevard outfall structure. This section would achieve a 1:1 slope ratio, but benched retaining walls would minimize slope hazards at this location.

Installation of a geo-cell web would occur on all exposed slopes after grading. Geo-cell is a plastic reinforcing web that blankets the ground surface to prevent erosion, allows water saturation, and provides exposed ground to facilitate vegetation growth (**Figure 2**). This material would reinforce the channel banks to support vegetation and resist erosion where vegetation cannot establish within the tidal zone. Rock would be imported to fill the geo-cell web along slopes within the tidal zone. All disturbed areas that can support vegetation would be revegetated with native plantings after construction, as outlined in the Guadalupe Channel Erosion Control Project Habitat Maintenance and Monitoring Plan (**Appendix A**).

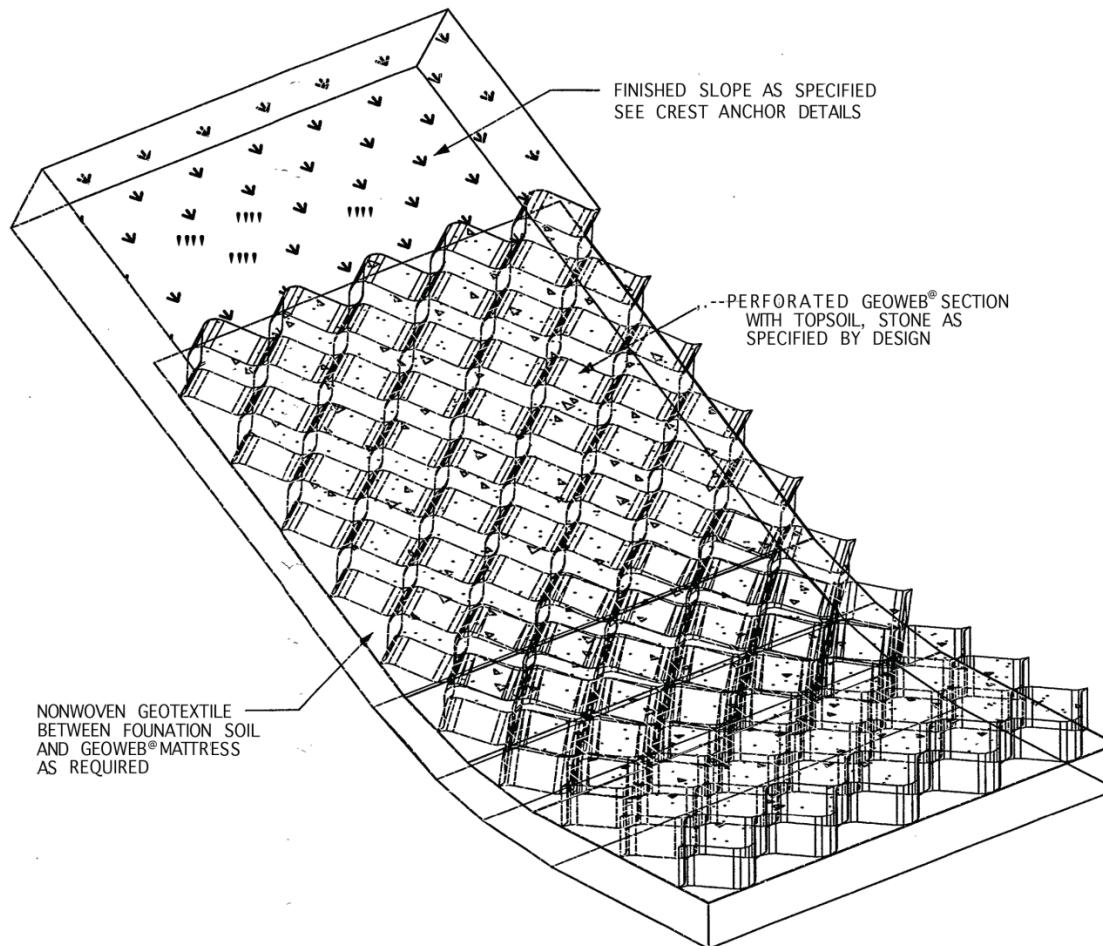
Project construction would commence in summer 2020 and would last approximately four months. Construction would begin with vegetation clearing, grubbing, and removal of a small steel sheet pile retaining wall on the northern bank of Guadalupe Channel immediately downstream of the Bayshore Boulevard outfall structure. Construction would continue with bank grading and installation of the geo-cell web. Material would be dredged from the bottom of Guadalupe Channel to establish the subgrade below the geo-cell system. This construction phase would also include sediment removal from a culvert beneath Bayshore Boulevard and a collection basin upstream of this culvert to ensure Guadalupe Channel is not impeded by existing sediment collected in these facilities. Access to the culvert, sediment collection basin, and channel banks would require temporarily diverting water flows within Guadalupe Channel.

The total disturbed area would be approximately 50,000 square feet (**Figure 1**). Removal of the steel sheet pile retaining wall downstream of the Bayshore Boulevard outfall structure would extend 10 feet below ground surface, which represents the maximum construction depth. Ground clearing, grading, and other construction activities would not exceed this depth. Approximately 650 cubic yards of sediment and 66 cubic yards of vegetation would be hauled offsite to a permitted disposal facility. Approximately 190 cubic yards of rock would be imported to fill the geo-cell web along the lower portions of channel slopes within the tidal zone. Project operation would entail routine inspection and maintenance of Guadalupe Channel, and approximately three years of watering to establish new vegetation.



Project Location Map

1



Materials for Channel System

Figure

2

3.0 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factor(s) checked below would be affected by the proposed project, resulting in at least one impact that is a "Potentially Significant Impact" as indicated by the checklist and discussion on the following pages.

- | | | |
|-------------------------------------------------------------------|-------------------------------------------------------------|------------------------------------------------------------------------|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture and Forestry Resources | <input checked="" type="checkbox"/> Air Quality |
| <input checked="" type="checkbox"/> Biological Resources | <input checked="" type="checkbox"/> Cultural Resources | <input type="checkbox"/> Energy |
| <input checked="" type="checkbox"/> Geology, Soils and Seismicity | <input type="checkbox"/> Greenhouse Gas Emissions | <input type="checkbox"/> Hazards and Hazardous Materials |
| <input checked="" type="checkbox"/> Hydrology and Water Quality | <input type="checkbox"/> Land Use and Planning Policy | <input type="checkbox"/> Mineral Resources |
| <input checked="" type="checkbox"/> Noise | <input type="checkbox"/> Population and Housing | <input type="checkbox"/> Public Services |
| <input type="checkbox"/> Recreation | <input type="checkbox"/> Transportation | <input checked="" type="checkbox"/> Tribal Cultural Resources |
| <input type="checkbox"/> Utilities and Service Systems | <input type="checkbox"/> Wildfire | <input checked="" type="checkbox"/> Mandatory Findings of Significance |

DETERMINATION:

On the basis of this initial study which reflects the independent judgment of the Community Development Department:

- I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have (a) been made by or agreed to by the project proponent or (b) mitigation measures will be implemented that will eliminate or reduce such significant effects to an insignificant level. A MITIGATED NEGATIVE DECLARATION will be prepared.
- I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, no further environmental documentation is required.

Date: _____

Karen Kinser, Deputy Director of Public Works,
City of Brisbane Public Works Department

4.0 ENVIRONMENTAL CHECKLIST

4.1 AESTHETICS

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Except as provided in Public Resources Code Section 21099, would the project:				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect daytime or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

a) Would the proposed project have a substantial adverse effect on a scenic vista?

No Impact. Guadalupe Channel is an eastward-flowing stream whose tributary sources originate on the northeast slope of San Bruno Mountain, west of the City limits within the San Bruno Mountain State and County Park. The portion of Guadalupe Channel that travels through the project site is located in an industrial and commercial area approximately 0.3 mile northeast of downtown Brisbane. Within the project site, Guadalupe Channel curves east and is surrounded by mature vegetation. The project site is undeveloped and abuts the Bayshore Boulevard right-of-way, vacant parcels, and industrial/commercial land uses.

According to the 1994 General Plan (General Plan) Community Character chapter (Brisbane 1994), San Bruno Mountain, located approximately 2 miles northeast of the project site, is considered a visual resource. However, the area surrounding the project site is dominated by transportation infrastructure and commercial/industrial development, and does not contain sensitive viewer populations like residential neighborhoods or designated public areas. Additionally, existing mature vegetation blocks many viewpoints from the project site.

The project would regrade and revegetate the Guadalupe Channel banks, and does not include other structures or facilities that would obstruct views of San Bruno Mountain. Grading operations would remove existing mature vegetation and expose new views of San Bruno Mountain looking west across the project site. As new vegetation planted after project

construction matures, views of San Bruno Mountain from the project site would revert to the current, obscured condition. Therefore, the project would not impact scenic vistas. No impact would occur.

- b) *Would the proposed project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?*

Less than Significant. As discussed above, the project site does not contain sensitive receptors and the landscape is generally dominated by transportation infrastructure. Construction would not substantially damage scenic resources, including rock outcroppings or historic buildings, within a state scenic highway, because there are no nearby state scenic highways (Caltrans 2011). The project would remove existing vegetation, including mature trees, from the project site (outlined in **Appendix C**, Table 4). Revegetation would occur at the end of the construction period, and the project site would eventually revert to the pre-project visual conditions. This includes tree replacement at, or beyond, the required replacement ratio. This impact would be less than significant.

- c) *Would the proposed project substantially degrade the existing visual character or quality of the public views of the site and its surroundings in non-urbanized areas? If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?*

Less than Significant. The Guadalupe Channel is located in an urban portion of the City. As discussed in **Section 4.11, Land Use and Planning Policy**, the 1994 Brisbane General Plan Land Use Diagram designates the project site as Public Facilities and Parks, and the project site is zoned C-1 Commercial Mixed-Use District.

Construction would consist of vegetation removal, grubbing, grading, installation of geo-cell for bank stabilization, and revegetation. A vacant parcel east of the project site (**Figure 1**) would be temporarily used as a staging area. Although construction equipment and activities would temporarily degrade the project site's existing visual character, revegetation would ultimately restore the site to pre-project conditions. Once completed, the scenic quality surrounding the project would remain largely unchanged, and would not conflict with applicable zoning and other regulations governing scenic quality. This impact would be less than significant.

- d) *Would the proposed project create a new source of substantial light or glare which would adversely affect daytime or nighttime views in the area?*

Less than Significant. The project would not include any permanent structures or facilities that generate light and glare. Construction equipment and materials on the project site could temporarily create light and glare, but these sources would be removed after construction and would not represent a permanent, substantial source of substantial light or glare that would adversely affect daytime or nighttime views in the area. This impact would be less significant.

Aesthetics References

California Department of Transportation (Caltrans), 2011. Scenic Highway Routes, California Scenic Highway Mapping System. Scenic Mapping Route. Available:
http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/index.htm. Accessed: August 2018.

City of Brisbane, 1994. The 1994 General Plan, Chapter III Community Character, adopted June 21, 1994. Available:
<http://brisbaneca.org/sites/default/files/brisbaneca/ChapterIIICommunityCharacter.pdf>. Accessed: August 2018.

4.2 AGRICULTURAL AND FOREST RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Convert farmland to non-agricultural use or otherwise impact agricultural operations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

- a) *Would the proposed project convert farmland to non-agricultural use or otherwise impact agricultural operations?*

No Impact. The project site is located in an urban area, and does not contain Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (California Department of Conservation 2016); is not under a Williamson Act contract; is not in agricultural use or zoned for agricultural use; and is not located in proximity to any agricultural use or land zoned for agricultural use (California Department of Conservation 2016). No impact would occur.

- b) *Would the proposed project result in the loss of forest land or conversion of forest land to non-forest use?*

No Impact. The project site is located in an urban area that is not designated as forest land (CalFire 2006). Although the project site contains a few mature trees that would be removed and replaced, the project would not convert designated forest land to non-forest use. No impact would occur.

Agricultural and Forest Resources References

California Department of Conservation, 2016. Important Farmland in California. Farmland Mapping and Monitoring Program, San Mateo County Important Farmland. Available: <ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2016/smt16.pdf>. Accessed: August 2018.

California Department of Forestry and Fire Protection (CalFire), 2006. Fire and Resource Assessment Program, Land Cover: Multi-Source Data Compiled for Forest and Range. Available: https://frap.fire.ca.gov/data/frapgismaps/pdfs/fvegwhr13b_map.pdf. Accessed: August 2018.

4.3 AIR QUALITY

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Conflict with or obstruct implementation of the Bay Area Clean Air Plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<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 type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

- a) *Would the proposed project conflict with or obstruct the implementation of the Bay Area Clean Air Plan?*

No Impact. The project site is located in the San Francisco Bay Area, which is in non-attainment for national and state ground-level ozone standards, national and state ground-level fine particulate matter (PM_{2.5}) standards, and state respirable particulate matter (PM₁₀) standards. To meet requirements related to these standards, the Bay Area Air Quality Management District (BAAQMD) developed the Bay Area 2010 Clean Air Plan (CAP). Conflicts with the CAP would occur if a project was inconsistent with CAP assumptions related to population growth and vehicle miles traveled (VMT).

The project does not include components that would induce population growth and the project would not lead to a substantial VMT increase; construction-related vehicle trips would be temporary, and project operation would only require occasional vehicle trips for inspection and

maintenance. As such, the project would not conflict with or obstruct implementation of the CAP. No impact would occur.

- b) *Would the proposed project 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?*

Less than Significant with Mitigation. Long-term, operational emissions would not occur because the project does not include permanent structures or uses that would emit air pollutants. Project construction, including grading and vehicle/equipment, would produce air pollutant emissions, including reactive organic gases (ROG), oxides of nitrogen (NO_x), carbon monoxide (CO), PM₁₀, PM_{2.5}, and sulfur dioxide (SO₂).

This air quality analysis conforms to the methodology recommended in the BAAQMD's 2017 CEQA Air Quality Guidelines to Evaluate Air Quality. The California Emissions Estimator Model (CalEEMod) version 2016.3.2 was used to calculate the project's construction emissions inputs provided by the applicant or based on the project site's characteristics. Inputs to the CalEEMod estimate provided by the applicant include existing land uses⁵, the project's operational year, construction phases, material export/import qualities, and demolition quantities. Information regarding construction equipment relied on default information provided by CalEEMod. Refer to **Appendix B** for a summary of the CalEEMod emission calculations.

Construction Emissions

Table 1 summarizes the estimated maximum daily emissions of pollutants during construction. As shown, project emissions for all criteria pollutants would not exceed BAAQMD project-level construction thresholds.

Table 1 Estimated Maximum Daily Pollutants Emissions

Year	Estimated Emissions (lbs/day)					
	ROG	NO _x	CO	PM ₁₀ (exhaust)	PM _{2.5} (exhaust)	SO ₂
2020 Maximum Daily Emissions	2.1718	26.6701	15.0089	1.1532	1.0768	0.0409
BAAQMD Thresholds (lbs/day)	54	54	N/A	82	54	N/A
Threshold Exceeded?	No	No	N/A	No	No	N/A

N/A = not applicable; no BAAQMD threshold for CO or SO₂

Source: **Appendix B**

⁵ The project's assigned land use type (recreational) and subtype (city park) represents the closest CalEEMod land use type and subtype to the project site's existing, vacant condition.

Control of CO and SO₂ during construction activities is currently not required to achieve regional attainment for these pollutants. Therefore, BAAQMD does not include designated thresholds for these pollutants. Furthermore, BAAQMD only recommends CO analysis for large construction efforts that would generate substantial construction traffic volumes. Although CO and SO₂ do not have defined BAAQMD thresholds, project construction emissions for these pollutants meet the associated federal and state ambient air quality standards.

Fugitive Dust

The PM estimates shown in **Table 1** assess PM generated from diesel emissions, such as exhaust. Fugitive dust is another form of PM emissions generated by the disturbance and release of granular material (sand/dirt) into the air. Clearing, grading, and earthmoving activities have a high potential to generate dust whenever soil moisture is low and the wind is blowing. Though PM from construction exhaust would be below BAAQMD thresholds, fugitive dust from construction activities would temporarily increase PM at the construction site. These activities could locally elevate PM levels within the project vicinity, which could potentially impact nearby sensitive receptors including residences located approximately 2,500 feet south of the project site. Fugitive dust emissions associated with project construction represents a potentially significant impact, reduced to a less-than-significant level with implementation of **Mitigation Measure AQ-1**.

Mitigation Measure AQ-1: Consistent with guidance from BAAQMD, the following actions shall be required of construction contracts and specifications for the project site:

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, and graded areas,) 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 parking lots and public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 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 shall be posted with the telephone number and person to contact at the City regarding dust complaints. This person shall respond and take corrective action within 48 hours.

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

Less than Significant. The BAAQMD Air Quality Guidelines require health risk analyses for projects within 1,000 feet of sensitive receptors. The nearest sensitive receptors, which are residences, are located approximately 2,500 feet south of the project site. The project would not expose sensitive receptors to substantial pollutant concentrations. Due to the relatively short length of the construction period and the distance between sensitive receptors and the project site, this impact would be less than significant.

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

Less than Significant. Diesel exhaust generated during project construction may be occasionally odorous. However, these odors would be temporary, localized, and unlikely to affect a substantial number of people in the project vicinity. Upon operation, the project would not produce odors or other emissions adversely affecting a substantial number of people. This impact would be less than significant.

Air Quality References

Bay Area Air Quality Management District, 2016. 2016 Clean Air Plan/ Regional Climate Protection Strategy Draft Control Measures & Implementation Actions. Available: <http://www.baaqmd.gov/~/media/files/planning-and-research/plans/clean-air-plan-update/control-measures-summary-with-implementation-actions-010516-pdf.pdf?la=en> Accessed: September 2018.

Bay Area Air Quality Management District, 2010. Bay Area 2010 Clean Air Plan, September 2010. Available: <http://www.baaqmd.gov/~/media/files/planning-and-research/plans/2010-clean-air-plan/cap-volume-i-appendices.pdf?la=en>. Accessed: September 2018.

4.4 BIOLOGICAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>
e) Conflict with City of Brisbane Tree Regulations protecting biological resources?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Conflict with the provisions of the San Bruno Mountain Area Habitat Conservation Plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

Methodology

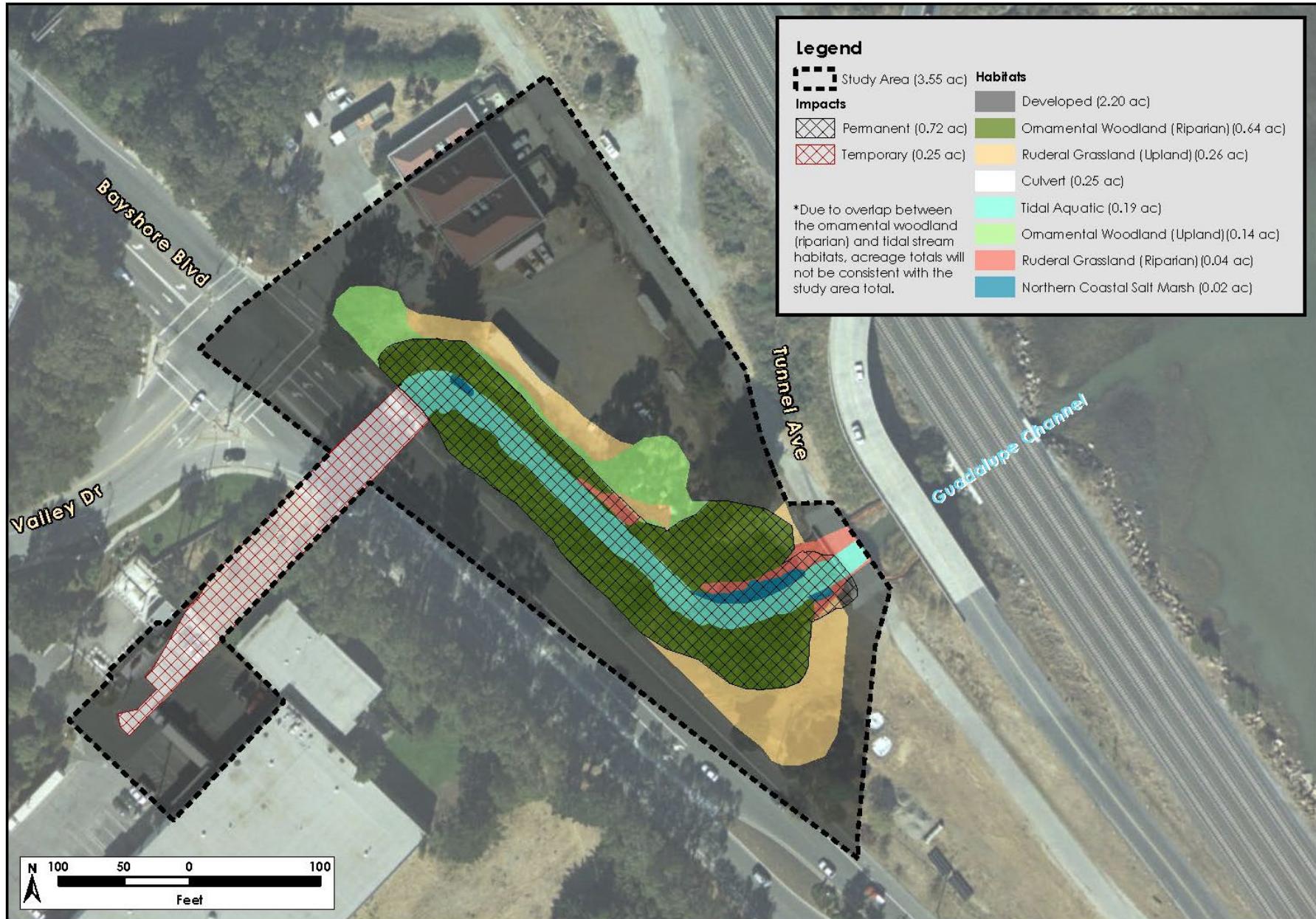
H. T. Harvey and Associates prepared a Biological Resources Report (BRR) in 2018 to identify potential biological impacts that could occur throughout project development (**Appendix C**). The BRR includes a background literature review and two field visits conducted in July and September of 2018. On-site surveys focused on the following key actions: (1) identify biotic, aquatic, and riparian habitats and general plant and wildlife communities on the project site and (2) assess the potential for the project to impact special-status species and/or their habitats.

Biologic Setting

According to the BRR and shown in **Figure 3**, the project site contains eight distinct habitat types:

- **Developed** (2.20 acres): Developed habitat accounts for over 60 percent of the total project site acreage. The vast majority of developed habitat is compacted soils and mulch that contains minimal vegetative cover.
- **Riparian Ornamental Woodland** (0.64 acre): This riparian habitat is dominated by non-native ornamental species. Wildlife found in this habitat consists primarily of foraging bird species and common wildlife because of the low structural diversity.
- **Upland Ornamental Woodland** (0.14 acre): Similar to the riparian ornamental woodland described above, this upland habitat predominantly consists of nonnative trees and generalist wildlife species.
- **Upland Ruderal Grassland** (0.26 acre): Plant diversity and vegetative cover is relatively low in this habitat type, and contains predominantly nonnative plant and animal species. The habitat is significantly manipulated, with many areas covered in a dense layer of mulch. Wildlife species associated with extensive grasslands are absent from the project site, however, some bird species use this area for foraging.
- **Riparian Ruderal Grassland** (0.04 acre): Similar to the upland ruderal grassland (described above) in both vegetation composition and wildlife.
- **Culvert** (0.25 acre): There are two large concrete box culverts that run from the western end of the project site underground for approximately 250 feet. These culverts do not contain vegetation and are expected to contain little to no wildlife.
- **Tidal Aquatic** (0.19 acre): Guadalupe Channel experiences both freshwater and brackish inputs within the project site. Generalist wading birds and ducks may forage for small fish species capable of tolerating brackish water within this habitat.
- **Northern Coastal Salt Marsh** (0.02 acre): This habitat type occurs on the fringe of the Guadalupe Channel, between the mean high-water level and the high tide line where tidal saturation occurs on a regular basis. The narrow extent of coastal salt marsh limits its value to marsh-dependent wildlife; thus, it is primarily used by generalist species.

Guadalupe Channel Erosion Control Project



Habitat and Impacts Map

Figure

3

Special-Status Species

Special-status species are those that are protected by federal, state, or local governments as “threatened, rare, or endangered.” The Federal Endangered Species Act (FESA) protects federally listed wildlife species from “take,” broadly defined as “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in any such conduct.” This includes habitat modification or degradation that directly results in death or injury of a listed wildlife species. “Take” can also be unintentional or accidental. The U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS) have jurisdiction over federally-listed, threatened, and endangered species under FESA. The USFWS also maintains lists of proposed and candidate species, which are not legally protected, but are often included in project review in the event that they become listed in the near future.

The California Endangered Species Act (CESA), enforced by the California Department of Fish and Wildlife (CDFW), prohibits “take” from any plant or animal, listed or proposed, as rare (plants only), threatened, or endangered. Habitat degradation or modification is not expressly included in the definition of “take” in CESA, however, the CDFW has interpreted “take” to include the “killing of a member of a species which is the proximate result of habitat modification.”

Overall, nonnative and invasive species across the project site inhibit the presence of many special-status plant or wildlife species. The BRR assessed 102 special-status plant species with potential to occur on the project site. All of the potentially-occurring special-status plant species were determined to be absent from the project site due to lack of suitable habitat. The BRR assessed 26 special-status wildlife species for potential occurrence in the area, and determined that 19 species are absent from the project site due to lack of suitable habitat.

Table 2 lists the seven special-status wildlife species that may occur at the project site and describes their preferred habitat. These species are only expected to occur as a visitor, migrant, or transient, and are not expected to live, breed, occur in large numbers, or otherwise make substantial use of the project site habitats. Refer to **Appendix C** for a more complete description and analysis of the special-status species originally assessed for presence on the project site.

Table 2 Special-Status Wildlife in the Project Site

Name	Status ¹	Habitat	Potential for Occurrence in the Project Site
Central California Coast steelhead (<i>Oncorhynchus mykiss</i>)	FT	Cool streams with suitable spawning habitat and conditions allowing migration between spawning and marine habitats.	Absent as Breeder. No suitable spawning habitat is present in or upstream from the project site, and the species is not known to spawn in the site vicinity. The culverts under the Sierra Point Parkway and U.S. Highway 101 provide an aquatic connection between the San Francisco Bay and the project site, which provides a pathway for the occasional stray Central California coast steelhead to wander into the project site. However, due to the marginal conditions in this narrow, shallow channel even for foraging Central California coast steelhead, this species is expected to occur in the project site infrequently and in low numbers, if at all.

Name	Status ¹	Habitat	Potential for Occurrence in the Project Site
Longfin smelt (<i>Spirinchus thaleichthys</i>)	ST, FC	Coastal waters; Cool bays and estuaries; spawns in rivers and bays; euryhaline.	Absent as Breeder. Species may be present in the tidal reaches of sloughs in the San Francisco South Bay, and stray individuals could occur within the reach of the Guadalupe Channel in the project site, which is tidally influenced. However, no suitable spawning habitat is present, and due to the marginal conditions in this narrow, shallow channel even for foraging smelt, individuals are expected to occur in the project site infrequently and in small numbers (if at all), and only from late fall to early spring.
Loggerhead shrike (<i>Lanius ludovicianus</i>)	CSSC (nesting)	Nests in tall shrubs and dense trees; forages in grasslands, marshes, and ruderal habitats.	Absent as Breeder. No suitable nesting habitat for this species occurs in the project site or project vicinity. However, individuals may occasionally occur in the project site during migration.
San Francisco common yellowthroat (<i>Geothlypis trichas sinuosa</i>)	CSSC (nesting)	Nests in herbaceous vegetation, usually in wetlands or moist floodplains.	Absent as Breeder. No suitable nesting habitat for this species occurs in the project site or project vicinity. The lack of extensive northern coastal salt marsh habitat precludes this species presence as a nesting species. This species may occur as an occasional visitor when dispersing, but is determined to be absent as a breeder.
Alameda song sparrow (<i>Melospiza melodia pusillula</i>)	CSSC (nesting)	Nests in salt marsh, primarily in marsh gumplant and cordgrass along channels.	Absent as Breeder. No suitable nesting habitat for this species occurs in the project site or project vicinity. The lack of extensive northern coastal salt marsh habitat precludes this species' presence as a nesting species. This species may occur as an occasional visitor when dispersing, but is determined to be absent as a breeder.
Bryant's savannah sparrow (<i>Passerculus sandwichensis alaudinus</i>)	CSSC (nesting)	Nests in pickleweed dominant salt marsh, adjacent ruderal habitat, moist grasslands, and, rarely, drier grasslands.	Absent as Breeder. No suitable nesting habitat for this species occurs in the project site. The lack of extensive northern coastal salt marsh habitat precludes this species presence as a nesting species. This species may occur as an occasional visitor when dispersing, but is determined to be absent as a breeder.
Pallid bat (<i>Antrozous pallidus</i>)	CSSC	Forages over many habitats; roosts in caves, rock outcrops, buildings, and hollow trees.	Absent as Breeder. Historically, pallid bats were likely present in a number of locations throughout the project region, but their populations have declined in recent decades. This species has been extirpated as a breeder from urban areas close to the San Francisco Bay, including the project site. No suitable roosting habitat is present in the project site and no known maternity colonies are present on or adjacent to the site. There is a low probability that the species occurs in the project vicinity at all due to urbanization; however, individuals from more remote colonies could potentially forage over the project site on rare occasions.
White-tailed kite (<i>Elanus leucurus</i>)	SP	Nests in trees and forages in extensive grasslands or marshes.	Absent as Breeder. No suitable nesting habitat for the white-tailed kite is found in the project site, though the species could possibly nest not far outside the project site. The California annual grasslands and mosaic of marsh habitats in the project site provide suitable foraging habitat for the species. This species may occur as a forager in the project vicinity.

Source: H. T. Harvey & Associates, 2018.

¹Special-Status Species Code Designations: FT = Federally listed Threatened; FC = Federal Candidate for listing; ST = State listed Threatened; CSSC = California Species of Special Concern; SP = State Fully Protected Species

Discussion

- 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 by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?*

Because of a lack of adequate habitat and the presence of nonnative and generalist species, the project site does not contain special-status plant species. As summarized in **Table 2** and analyzed below, the project site provides potential habitat for seven special-status wildlife species, as well as Essential Fish Habitat (EFH).

Longfin Smelt & Central California Coast Steelhead

Less than Significant with Mitigation. The longfin smelt is a state listed threatened and a proposed federally endangered species. It is adapted to a wide range of salinities and occupies different portions of the San Francisco Bay throughout the year. Stray longfin smelt individuals could occur within the tidally influenced Guadalupe Channel project site.

The Central California coast steelhead is an anadromous form of rainbow trout listed as federally threatened. In San Mateo County, it is known to spawn in coastal streams, but not the San Francisco Bay or Guadalupe Channel.

Because longfin smelt wander away from spawning areas during winter, and Central California coast steelhead are unlikely to be in the San Francisco Bay near the project during the construction period (June 15 – October 15), these species are unlikely to be present in Guadalupe Channel during in-channel work activities. The Guadalupe Channel is narrow and shallow; it does not represent suitable breeding habitat for the longfin smelt or the Central California coast steelhead. However, both species may occur in the adjacent Brisbane Lagoon about 280 feet downstream of the project site, and could occur as occasional strays within Guadalupe Channel, with an even lower chance of strays coming into the project site during in-channel work activities during the dry season.

Regrading the Guadalupe Channel banks, removing sediment, installing geo-cell webbing, and replanting with native riparian vegetation would eliminate or reduce existing erosion over the lifetime of the project. This would also improve the long-term channel slope stability, thereby reducing the potential for additional or new erosion from this site in the future. Construction activities could temporarily degrade habitat by reducing the availability of escape using marsh vegetation, reducing refugia during high flows, and reducing of substrate used for foraging. However, these conditions are temporary and would only occur during the construction period, and do not represent a permanent impact on protected fish species habitat. Overall, by improving long-term slope stability and reducing erosion potential, the project would beneficially affect the occasional longfin smelt and Central California coast steelhead that might wander into Guadalupe Channel.

Potential water quality impacts that could affect fish species would be caused by construction activities, such as channel draining, sediment runoff, and disturbed land surfaces eroding into the channel. These would be addressed by complying with regulatory requirements under the California Regional Water Quality Control Board, San Francisco Bay Region, Municipal Regional Stormwater National Pollutant Discharge Elimination System (NPDES) Permit. Compliance with this permit prevents stormwater runoff pollution and reduces the volume of water coming from a project site after construction. Thus, the project would not degrade fish habitat as a result of water quality impacts.

In the event that individual Central California coast steelhead or longfin smelt would be present within the work area when construction occurs, these fish could be injured or killed as a result of stranding or relocation efforts. This represents a potentially significant impact, reduced to a less-than-significant level with implementation of **Mitigation Measure BIO-1**.

Mitigation Measure BIO-1. Prior to dewatering activities in Guadalupe Channel, qualified biologists will use nets to exclude fish from the construction area. During the low end of a falling tide, a block net would be placed at the upper end of the reach to be dewatered. Subsequently, qualified biologists would walk from the upper to lower end of the reach with a net stretched across the channel to encourage fish to move out of the construction area. When the lower end of the construction area is reached, a second block net would be installed to isolate the construction reach. This procedure would be repeated a minimum of three times per dewatered tidal reach to ensure that no fish, including Central California coast steelhead or longfin smelt, remain within the construction area. Mesh size would not exceed 9.5 millimeters to ensure that longfin smelt, as well as all other native fish that may be present in the channel, are adequately excluded from this area. These nets would be maintained in place until the coffer dam has been constructed to isolate the in-channel work area from areas in which fish occur.

Essential Fish Habitat

Less than Significant. The Magnuson-Stevens Fishery Conservation and Management Act governs all fishery management activities that occur in federal waters within the United States' 200-nautical-mile limit. The Act establishes eight Regional Fishery Management Councils responsible for the preparation of fishery management plans (FMPs) to achieve the optimum yield from U.S. fisheries in their regions. These councils, with assistance from the NMFS, establish EFH in FMPs for all managed species. Federal agencies that fund, permit, or implement activities that may adversely affect EFH are required to consult with the NMFS regarding potential adverse effects of their actions on EFH.

A number of fish species regulated by NMFS occur in tidal habitats in San Francisco Bay, including open water portions of San Francisco Bay immediately adjacent to Brisbane Lagoon. While the Guadalupe Channel itself is not specifically identified as EFH under any relevant FMP, Brisbane Lagoon is classified as EFH, and NMFS may also regard the Guadalupe Channel below mean high water (MHW; approximately 5.2 feet) as EFH. The Brisbane Lagoon is

connected to the adjacent San Francisco Bay by the Brisbane Tubes, two concrete culverts that establish connectivity between the waters of the San Francisco Bay and the Brisbane Lagoon and ultimately, the Guadalupe Channel. By regrading the channel banks and removing sediment during construction, the project could temporarily impact potential EFH. Complying with regulatory requirements through the NPDES permit would prevent temporary project impacts on water quality and EFH. Permanent impacts on EFH would be positive, because the long-term effects of the project would reduce erosion, thereby improving water quality and habitat. Therefore, there impact EFH would be less than significant.

White-tailed Kite and Other Nesting Birds

Less than Significant with Mitigation. All native bird species that occur within the project site are protected under the Migratory Bird Treaty Act (MBTA), 16 U.S.C. Section 703. The MBTA prohibits killing, possessing, or trading of migratory birds and their parts, eggs, and nests. In addition, foraging white-tailed kite individuals (a CDFW fully-protected species) may occur on the project site, although the project site does not contain suitable nesting habitat. However, this species may nest close enough to be affected by construction activities.

The project would result in permanent impacts on approximately 0.69 acres of white-tailed kite foraging habitat in the project site. This acreage includes permanent impacts to 0.64 acres of riparian ornamental woodland, all of which would be removed, as well as permanent impacts to 0.03 acres of riparian ruderal grassland, and 0.02 acres of northern coastal salt marsh. However, these temporary impacts would be offset by the planting of native riparian trees such as coast live oak (*Quercus agrifolia*), box elder (*Acer negundo*), and buckeye (*Aesculus californica*), all of which would be planted along with native shrubs and herbaceous vegetation above the top of bank where project activities result in vegetation removal.

Other native bird species protected by the MBTA may nest on or near the project site, and could experience disturbances during the construction period. As a result, project construction activities could result in “take” of native bird species. This represents a potentially significant impact, reduced to a less-than-significant level through application of **Mitigation Measure BIO-2**.

Mitigation Measure BIO-2: To the extent feasible, construction activities shall be scheduled to avoid the nesting season. If construction activities are scheduled to take place outside the nesting season, all impacts on nesting birds protected under the MBTA and California Fish and Game Code will be avoided. The nesting season for most birds in San Mateo County extends from February 1 through August 31.

If it is not possible to schedule construction activities between September 1 and January 31, then preconstruction surveys for nesting birds shall be conducted by a qualified ornithologist to ensure that no nests will be disturbed during project implementation. These surveys shall be conducted no more than seven days prior to the initiation of construction activities. During this survey, the ornithologist would inspect all trees and other potential

nesting habitats (e.g., trees, shrubs, ruderal grasslands, buildings) in and immediately adjacent to the impact areas for nests.

If an active nest is found sufficiently close to work areas to be disturbed by these activities, the ornithologist would determine the extent of a construction-free buffer zone to be established around the nest (typically 300 feet for raptors and 100 feet for other species), to ensure that no nests of species protected by the MBTA and California Fish and Game Code would be disturbed during project implementation.

If construction activities cannot be initiated until after the start of the nesting season, all potential nesting substrates (e.g., bushes, trees, grasses, and other vegetation) scheduled to be removed by the project may be removed prior to the start of the nesting season (e.g., prior to February 1). This would preclude the initiation of nests in this vegetation, and prevent the potential delay of the project due to the presence of active nests in these substrates.

Nonbreeding Special-Status Birds and Mammals

Less than Significant. While the project site does not contain suitable breeding habitat for many bird and mammal species, those species could still pass through or forage on the project site. Such species could include loggerhead shrike, San Francisco common yellowthroat, Alameda song sparrow, Bryant's savannah sparrow, and pallid bat. While these species would only occur on the project site as dispersing and/or wandering individuals, and could forage on the project site, no suitable nesting habitat for any of these species exists on the site due to the lack of sufficient vegetation. Therefore, while ground disturbance, vegetation removal, noise, and vibration caused by project activities could disturb individuals of these species, no individuals would be injured or killed, as they could easily fly away from disturbances in the work site. Similarly, the loss of any foraging or roosting habitat that may exist on the project site represents a small proportion of the suitable habitat available on a regional scale, and because habitat on the site is of generally low quality, few individuals of these species would rely on the site. Therefore, project impacts on habitat that may be used by these species for foraging would not substantially affect regional populations. This represents a less-than-significant impact.

- 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, regulations or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?*

Impacts to Riparian Habitat

Less than Significant. The CDFW enforces the California Fish and Game Code, which defines riparian habitat as habitat which grows close to and depends upon soil moisture from a nearby freshwater source. The CDFW regulates any project that would substantially divert or obstruct the natural flow or substantially alter any body of water. Riparian habitats surround river and stream banks and normally contribute disproportionately high habitat values and functions for

their limited size. Such habitat is restricted in highly urbanized areas and uncommon in the larger landscape surrounding the project site.

The project site contains eight distinct habitat types. Of these, only riparian ornamental woodland (0.64 acres) and riparian ruderal grassland (0.04) qualify as CDFW-designated riparian habitat. The riparian ornamental woodland and riparian ruderal grassland habitats are dominated by invasive nonnative trees, all of which would be replaced during project construction. While construction activities would temporarily impact riparian woodland and grassland habitats, revegetation and bank restoration would permanently improve their ecological functions. Thus, no offsite mitigation is required, and impacts would be less than significant. Refer to **Appendix A** for more information regarding the revegetation and restoration requirements associated with CDFW-designated riparian habitat.

Impacts Related to Non-Native and Invasive Species

Less than Significant with Mitigation. Several non-native, invasive plant species occur in the habitats located throughout the project site. Invasive species can spread easily into sensitive habitats and can be difficult to eradicate. Disturbed areas are highly susceptible to nonnative plant invasion, which would degrade the ecological value of sensitive habitats. This represents a potentially significant impact. As a preventative measure, the project would limit the cover of weed species within the channel and would include maintenance weed removal for at least five years post-construction. Additionally, **Mitigation Measure BIO-3** would reduce potential weed-related impacts on sensitive habitat to a less-than-significant level.

Mitigation Measure BIO-3: All disturbed upland and riparian soils would be stabilized and planted with a native seed mix from seed sourced from local genotypes following construction. All straw used as erosion control materials for the project would be certified weed-free. The removed vegetation, much of which is invasive, would be collected and completely removed from the project site. This material would be disposed of in a legally operating landfill so that propagules are not spread to other areas. All equipment used to remove project vegetation would be washed prior to use on another project site.

- 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?*

Less than Significant. Wetlands are considered sensitive environmental resources and are protected at federal, state, and local levels. Throughout California, the quality and quantity of wetlands has dramatically declined due to river infrastructure and other degradations. Regionally, wetlands are scarce. Even small wetland areas make disproportionately large contributions to water quality, groundwater recharge, watershed function, and wildlife habitat in the region.

The project site contains two types of wetland communities: a northern coastal salt marsh (0.02 acres) and tidal aquatic habitat (0.19 acres). The northern coastal salt marsh would be

temporarily removed to allow channel grading. However, because the banks would be laid back to a 2:1 slope to replace the near vertical existing slope, the project would restore approximately 0.07 acres (a 0.05-acre increase) of improved, higher quality salt marsh. The restored salt marsh would provide a more contiguous band of habitat along the channel and would be bordered upslope by a native dominated biological transitionary area where none is currently present. The project's restoration activities would permanently improve coastal salt marsh habitat, and overall impacts to coastal salt marsh would be less than significant.

Temporary and permanent impacts would also occur on the tidal aquatic habitat through grading of the stream channel and dewatering during the course of construction. However, this area is not currently vegetated, so no vegetation or wetlands would be lost. Grading would lay back the channel and would expand the tidal aquatic habit below MHW from 0.17 acres to 0.18 acres. Channel conditions would return to pre-project or better condition shortly after water flows resume. Additionally, the project's planned bank stabilization and establishment of native riparian vegetation would improve erosion control, and thus water quality, within the tidal habitat. Given the limited time frame of dewatering and the permanent improvements to the habitat, these impacts would be less than significant. Refer to **Appendix A** for more information regarding the project's revegetation plan.

- d) Would the proposed project 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?*

Less than Significant. Wildlife corridors are segments of land that provide a link between habitat types for migratory species. Development that fragments natural habitats can decrease habitat patches to unusable size and may break connectivity between habitats, making the area between habitats unsuitable for wildlife to transverse.

Guadalupe Channel flows underground upstream of the project site, so the project site does not represent a movement pathway for wildlife between upper portions of the watershed (upstream of the channel) and Brisbane Lagoon and San Francisco Bay (downstream of the channel). Wildlife that would use the project site during construction would be able to circumvent the construction area and find suitable alternative habitats for use during their movements. The project site provides low-quality habitats and construction would not substantially impact any wildlife nursery sites. Therefore, impacts of the project on wildlife movement and nursery areas would be less than significant.

- e) Would the proposed project conflict with City of Brisbane Tree Regulations protecting biological resources?*

Less than Significant. Per the City of Brisbane Municipal Code Section 12.12, Tree Regulations, permits are required for the removal of the protected trees which occur in the project site. The removal or pruning of trees protected by the City of Brisbane Municipal Code is considered potentially significant. However, this project would qualify for an exemption of removal of

protected trees on City property for City employees or their agents. Therefore, potential impacts related to conflict with local policies would be less than significant.

f) *Would the proposed project conflict with the San Bruno Mountain Habitat Conservation Plan?*

No Impact. The San Bruno Mountain Habitat Conservation Plan provides guidance for developing management and monitoring plans for the conservation of native butterfly species and the overall native ecosystem of San Bruno Mountain. The project site is located within a developed area of the City and is not within the boundaries of the San Bruno Mountain Habitat Conservation Plan (Final Plan, 1982; Annual Report, 2016). Therefore, no impacts would occur.

Biological Resources References

County of San Mateo, 1982. San Bruno Mountain Area Habitat Conservation Plan Final.

Available:

https://parks.smcgov.org/sites/parks.smcgov.org/files/documents/files/SBM_HCP_Fina1_Volume1_November1982.pdf. Accessed: December 2018.

H. T. Harvey & Associates, 2018. Guadalupe Channel Erosion Control Project, Biological Resources Report.

H.T. Harvey & Associates, 2018. Guadalupe Channel Erosion Control Project, Regulated Habitats Report.

San Mateo County Parks Department, 2016. San Bruno Mountain Habitat Conservation Plan, Year 2016 Annual Activities Report for Federally Listed Species and Habitat Management.

Available:

https://parks.smcgov.org/sites/parks.smcgov.org/files/documents/files/2015_SBMHCP_Annual_Report_0.pdf. Accessed: December 2018.

4.5 CULTURAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Discussion

- a) *Would the proposed project cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?*

OR

- b) *Would the proposed project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?*

Less than Significant with Mitigation. The Northwest Information Center at Sonoma State University prepared a non-confidential California Historical Resources Information System (CHRIS) records search for the project area ([Appendix D](#)). This record search determined that no buildings or structures exist within the project site, so the project would not impact historical resources.

The CHRIS records search highlighted three cultural resource studies previously conducted in the area, including one (#3075) study that assessed the entire the project site. These existing studies confirmed that the project area does not contain recorded archaeological sites. However, redevelopment of the project site could expose or destroy previously unidentified archaeological resources during construction. This represents a potentially significant impact, reduced to a less-than-significant level with implementation of **Mitigation Measure CUL-1**.

Mitigation Measure CUL-1: If historic or archaeological materials are discovered during ground disturbing activities, project construction would cease within a 50-foot radius of the discovery in order to proceed with the testing and mitigation required under Section 7050.5(b) of the California Health and Safety Code and Section 5097.94 of the Public resources Code of the State of California. The State Historic Preservation Officer would be contacted as soon as possible. Construction in the affected area would not resume until the regulations of the Advisory council on Historic Preservation (36 CFR Part 800) have been satisfied.

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

Less than Significant with Mitigation. Native American resources have been found in areas marginal to the San Francisco Bayshore and inland near creeks, as well as upland areas. According to the CHRIS records search and the General Plan, the City contains several known prehistoric archaeological sites. Given this, the project could disturb unmarked prehistoric archaeological habitation/burial sites during construction. This represents a potentially significant impact, reduced to a less-than-significant level with implementation of **Mitigation Measure CUL-2**.

Mitigation Measure CUL-2: In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the human remains are discovered has determined, in accordance with Chapter 10 (commencing with Section 27460) of Part 3 of Division 2 of Title 3 of the Government Code, that the remains are not subject to the provisions of Section 27492 of the Government Code or any other related provisions of law concerning investigation of the circumstances, manner and cause of death, and the recommendations concerning treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative, in the manner provided in Section 5097.94 of the Public Resources Code.

Cultural Resources References

City of Brisbane, 1994. The 1994 General Plan, Chapter IX Conservation. Available:
<http://brisbaneca.org/sites/default/files/brisbaneca/ChapterIXConservation.pdf>. Accessed: September 2018.

Northwest Information Center, 2018. California Historical Resources Information System (CHRIS) Records Search, September 2018.

4.6 ENERGY

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

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

Less than Significant. This erosion control project entails bank stabilization improvements that would not entail the use of energy during operation. Construction equipment would require the temporary consumption of fuel and energy, but these minor energy demands would represent typical construction usage and would not result in wasteful, inefficient, or unnecessary consumption of energy resources. This impact would be less than significant.

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

Less than Significant. The City's energy policies, found in the General Plan Chapter IX, Conservation are found in Section 7, Energy (City of Brisbane, 2019):

- Policy 139: Promote the conservation of non-renewable energy resources.
- Policy 140: Encourage energy-efficient building design and site planning.
 - Program 140a: Continue to administer building codes that contain State requirements for energy conservation.
 - Program 140b: As a part of the review of land use applications for subdivisions, specific plans and new non-residential and multi-family projects, encourage the design and siting of structures and the use of landscape materials in terms of utilizing natural resources for heating and cooling.
- Policy 141: Encourage the installation of energy-efficient appliances.
 - Program 141a: Cooperate with PG&E in promoting energy conservation by providing information and referral on energy-efficient appliances and heating and cooling systems.
- Policy 142: Continue to support vehicle trip-reduction programs to conserve non-renewable fuels.

The project would not conflict with or obstruct the City's General Plan energy policies outlined above, and this impact would be less than significant.

Energy References

City of Brisbane, 1994. The 1994 General Plan, Chapter IX Conservation, adopted June 21, 1994. Available:
<http://brisbaneca.org/sites/default/files/brisbaneca/ChapterIXConservation.pdf>. Accessed: March 2019.

4.7 GEOLOGY, SOILS, AND SEISMICITY

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Directly or indirectly cause potential 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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 type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Discussion

- a) *Would the proposed project directly or indirectly cause potential 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?*

No Impact. The Alquist-Priolo Earthquake Fault Zoning Act requires the California Geological Survey (CGS) to delineate active and well-defined fault zones. According to the CGS, the project site is not located within an Alquist-Priolo Earthquake Fault Zone, nor is it located on or immediately adjacent to any known active or potentially active fault (ABAG 2013). The nearest active faults to the project site are the San Andreas Fault, located approximately 6 miles southwest of the project site, and the Hayward Fault, located approximately 14 miles northeast of the project site. Because the project site is not located on or immediately adjacent to an active fault, no impact would occur.

- ii. *Strong seismic ground shaking?*

Less than Significant with Mitigation. The project site, along with the entire San Francisco Bay Area, is dominated seismically by the active San Andreas Fault system. The San Andreas Fault system forms the boundary between the northward-moving Pacific Plate (west of the fault) and the southward-moving North American Plate (east of the fault). In the San Francisco Bay Area, this movement is distributed across a complex system of subparallel right-lateral strike-slip faults, which include the San Andreas, San Gregorio, Hayward, Rogers Creek, and Calaveras faults, among others. These faults are all considered active or potentially active and capable of producing significant intensities and durations of ground-shaking at the site. Historically, the City has been subject to intense seismic groundshaking and will likely experience seismic events from future earthquakes generated by active faults in the San Francisco Bay Area.

Recent studies by the United States Geological Survey (USGS) indicate a 63 percent probability of a magnitude 6.7 or greater earthquake in the San Francisco Bay Area in the next 30 years (USGS 2008). The intensity of such an event and the severity of groundshaking at the project site would depend on the causative fault and the distance to the epicenter, the depth of the rupture below ground surface, the movement magnitude, and the duration of shaking. A seismic event in the San Francisco Bay Area could produce violent ground-shaking at the project site (ABAG 2013), which could endanger people and facilities in the project site vicinity. This represents a potentially significant impact, reduced to a less-than-significant level through implementation of **Mitigation Measure GEO-1**.

Mitigation Measure GEO-1: Prior to approval of a grading plan, a licensed geotechnical or soil engineer shall prepare a design-level geotechnical report outlining site-specific construction methods and recommendations regarding grading activities, fill placement, soil

corrosivity/expansion/erosion potential, compaction, foundation construction, drainage control (both surface and subsurface), and avoidance of settlement, liquefaction, differential settlement, and seismic hazards in accordance with current California Building Code requirements including Chapter 16, Section 1613. The report shall require that all subsurface improvements that include any materials susceptible to corrosive effects would be engineered in conformance with the most recently adopted California Building Code requirements including the use of engineered backfill. The report shall also include stability analyses of final design cut and fill slopes, including recommendations for avoidance of slope failure. The final grading plan shall be designed and constructed in accordance with requirements of the final design-level geotechnical investigation prior to building.

iii. Seismic-related ground failure, including liquefaction?

Less than Significant with Mitigation. Liquefaction susceptibility is a soil's relative resistance to collapse or failure when subjected to groundshaking. Such failures, including localized ground settlement and lateral spreading, can cause significant property damage. According to liquefaction susceptibility maps produced by the Association of Bay Area Governments (ABAG), the risk of liquefaction is high at the project site (ABAG 2013). However, site-specific liquefaction hazards at the project site would be addressed by the geotechnical investigation required by **Mitigation Measure GEO-1**, described above. Therefore, with implementation of **Mitigation Measure GEO-1**, potential impacts associated with seismic-induced ground failure would be less than significant.

iv. Landslides?

No Impact. The site is not located within a mapped landslide or landslide hazard area (ABAG 2013). Improvements included as part of the project include reinforcing the banks of the Guadalupe Channel with erosion control material and retaining walls. Retaining walls near Bayshore Boulevard could reach slopes of 1:1, transition to 2:1, and then remain 2:1 until the project terminus at Machinery Road. These improvements would be designed to avoid slope instability hazards. No impact would occur.

b) Would the proposed project result in substantial soil erosion or the loss of topsoil?

Less than Significant. Project construction would involve ground disturbing activities such as excavation, trenching, and grading, which could mobilize sediment and cause erosion. However, as discussed in **Section 4.9, Hydrology and Water Quality**, the project's Storm Water Pollution Prevention Plan would stipulate construction-period erosion control activities, such as damp street sweeping and temporary cover of disturbed surfaces. Upon operation, the project would stabilize soils within Guadalupe Channel by installing a geo-cell web and revegetating the channel banks vegetation growth. The purpose of these improvements is to resist erosion throughout the project's lifetime. This impact would be less than significant.

- c) *Would the proposed project 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?*

Less than Significant with Mitigation. As stated above, the project site is not located within a mapped landslide hazard area. Improvements included as part of the project include reinforcing the banks of the Guadalupe Channel with erosion control material and retaining walls, which would be designed to avoid slope instability hazards.

According to ABAG liquefaction susceptibility maps, the risk of liquefaction is high at the project site (ABAG 2013). However, site-specific liquefaction hazards at the project site would be addressed by the geotechnical investigation and recommendations required by **Mitigation Measure GEO-1**, described above. This impact would be less than significant with mitigation.

- d) *Would the proposed project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating direct or indirect risks to life or property?*

Less than Significant with Mitigation. Clay-rich soils tend to expand and contract in response to changes in soil moisture. Orthents soils, such as those mapped at the project site, contain silty clay that could shrink and swell. In addition, a Geotechnical Evaluation conducted for a nearby project indicates that soils within the project vicinity consist of Bay Mud, which is susceptible to shrinking and swelling when located above the groundwater table (Lowney Associates 2004). Soils at the project site consist of about 8 percent Urban Land and 92 percent Urban Land - Orthents, Reclaimed Complex, 0 to 2 percent slopes. This soil is a well-drained alluvium soil greater than 80 inches thick (USDA 2016). Urban Land-Orthents, Reclaimed Complex soils are developed on the coastal terraces and hills north of where Interstate 280 (I-280) and Skyline Boulevard diverge. These soils could exhibit hazards associated with expansion, which represents a potentially significant impact.

Mitigation Measure GEO-1 would require a geotechnical investigation to analyze potential soil expansion impacts at the project site and prescribe appropriate protocol, such as chemical stabilization or pre-construction saturation measures, to minimize expansive soil risks.

Mitigation Measure GEO-1 would reduce this potentially significant impact to a less-than-significant level.

- e) *Would the proposed 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?*

No Impact. The project does not require the use of septic tanks or any other alternative wastewater disposal system. No impact would occur.

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

Less than Significant with Mitigation. According to the Neogene Mammal Mapping Portal, the City does not contain recorded paleontological resources and the project's probability to encounter paleontological resources is low (University of California 2018). However, ground-disturbing activities could encounter undocumented paleontological resources during project construction. This represents a potentially significant impact, reduced to a less-than-significant level with implementation of **Mitigation Measure GEO-2**.

Mitigation Measure GEO-2: Discovery of a paleontological specimen during any phase of the project shall result in a work stoppage in the vicinity of the find until it can be evaluated by a professional paleontologist. Should loss or damage be detected, additional protective measures or further action (e.g., resource removal), as determined by a professional paleontologist, shall be implemented to mitigate the impact.

Geology, Soils, and Seismicity References

Association of Bay Area Governments (ABAG), 2013. Earthquake Hazard Maps for Brisbane. Available: www.abag.ca.gov/bayarea/eqmaps/pickcity.html. Accessed: August, 2018.

Brisbane Baylands Draft EIR, 2013. Geology, Soils, and Seismicity. Available: http://www.cibrisbane.ca.us/sites/default/files/4e_geology.pdf. Accessed: October 2018.

Lowney Associates, 2004. Geotechnical Evaluation: Guadalupe Bridge, Tunnel Avenue Overhead Project.

United States Department of Agriculture (USDA) Natural Resources Conservation Service, 2016. Web Soil Survey. Available: <http://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>. Accessed: September 2018.

United States Geological Survey (USGS), 2008. Uniform California Earthquake Rupture Forecast (UCERF). Available: <http://earthquake.usgs.gov/regional/nca/ucerf/>. Accessed: September 2018.

University of California Museum of Paleontology, 2018. Neogene Mammal Mapping Portal. Available online: <http://www.ucmp.berkeley.edu/neomap/>. Accessed: September 2018.

4.8 GREENHOUSE GAS EMISSIONS

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

- a) *Would the proposed project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?*

Less than Significant. Global warming associated with the “greenhouse effect” is a process whereby greenhouse gases (GHG) accumulating in the atmosphere contribute to an increase in the temperature of the earth’s atmosphere. The principal GHGs contributing to global warming and associated climate change are carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), and fluorinated compounds. GHG emissions contributing to global climate change are attributable to human activities associated with the transportation, industrial and manufacturing, utility, residential, commercial, and agricultural sectors.

BAAQMD’s 2017 CEQA Air Quality Guidelines apply GHG efficiency thresholds for long-term operational impacts (BAAQMD 2017). This “brightline” GHG efficiency emission threshold is 1,100 metric tons of carbon dioxide equivalent (CO₂e) per year, or 6,640 pounds of CO₂e per day (lbs/day). Projects with emissions below this threshold are considered to have less-than-significant GHG emissions.

The project site is currently vacant and does not generate GHG emissions. Although occasional vehicle trips for inspection and maintenance would generate negligible GHGs, the project does not include structures or uses that would emit substantial long-term operational GHG emissions. However, project construction would result in GHG emissions associated with equipment usage and vehicle trips to and from the site. Construction-related GHG emissions vary depending on the length of the construction period, specific construction activities, types of equipment, and number of personnel. BAAQMD does not currently recommend a construction GHG threshold because there is not enough sufficient evidence to determine a level at which construction emissions significantly contribute to GHG impacts. Instead, this analysis uses BAAQMD’s operational GHG efficiently threshold (6,640 lbs/day) to evaluate the project’s construction-related GHG impacts.

The California Emissions Estimator Model (CalEEMod)⁶ determined that construction-related GHG emissions would be roughly 4,217 lbs/day of CO₂e, which is beneath the 6,640 lbs/day threshold (**Appendix B**). Therefore, impacts associated with GHG emissions would be less than significant.

- b) Would the proposed project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?**

Less than Significant. The City adopted a Climate Action Plan (CAP) to establish GHG reduction targets and measures for controlling and reducing GHG emissions (CAP 2015). The CAP includes five climate action strategy categories: Energy, Water Use, Solid Waste, Road Emissions/Transportation Measures, and 'All Sector' measures. The following list outlines the project's applicability to each of these climate action strategy categories.

- *Energy* measures do not apply because the project would not create new permanent structures that would consume energy.
- *Solid Waste* measures do not apply because project operation would not increase long-term solid waste generation.
- *Road Emission/Transportation* measures do not apply because, other than temporary construction-related VMT and occasional vehicle trips for inspection and maintenance, the project would not result in vehicular GHG emissions.
- *All Sector* measures do not apply because the project does not entail construction of new permanent buildings.
- *Water Conservation* measures apply because the project would consume water for an approximately three-year period to establish on-site vegetation. Water Measure A, Water Conservation Incentives, outlines City adopted policies to conserve water. As required by this measure, the project would adhere to the Brisbane Conservation in Landscaping Ordinance.

Given the above, the project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases. This impact would be less than significant.

Greenhouse Gas Emissions References

Bay Area Air Quality Management District (BAAQMD), 2017. California Environmental Quality Act Air Quality Guidelines.

California Air Resources Board, 2008. Climate Change Proposed Scoping Plan: A framework for Change.

Association of Governments of San Mateo County, 2015. Climate Action Plan (CAP).

⁶ Refer to Section 4.3, Air Quality, and Appendix B for a discussion of the CalEEMod emission calculations.

4.9 HAZARDS AND HAZARDOUS MATERIALS

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input 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 type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<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 type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<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 type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<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 type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

- a) *Would the proposed project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?*

Less than Significant. The project entails installation of passive erosion-control materials. As such, the project does not include uses or activities that would generate, use, or require the transport of hazardous materials during operation.

Construction would require the use or transport of hazardous materials at the project site, such as fuels, oils, and other chemicals commonly used at construction sites. Improper use and transportation of such hazardous materials could result in accidental releases or spills, potentially endangering workers, the public, and environment. Project construction would require implementation of best management practices (BMPs) to comply with the National

Pollutant Discharge Elimination System (NPDES) permit.⁷ BMPs for construction would include site housekeeping practices, hazardous material storage, inspections, worker training in pollution prevention measures, and containment of releases to prevent runoff via stormwater. Given the above, this impact would be less than significant.

- b) Would the proposed project 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?*

No Impact. A Phase I Environmental Site Assessment (ESA) was conducted in 2003 for a new bridge on the Tunnel Avenue overpass, which now extends over Guadalupe Channel and forms the southeastern boundary of the project site (Lowney Associates 2003). The purpose of this Phase I was to document the presence of existing hazardous conditions for the Tunnel Avenue overpass bridge installation, but the historical contamination investigations conducted for this Phase I encompassed the Guadalupe Channel project site. The Phase I did not identify hazardous conditions or areas of known contamination that could be encountered within the Guadalupe Channel project site. In addition, GeoTracker (State Water Resources Control Board 2019) and EnviroStor (California Department of Toxic Substances Control 2019) database searches conducted in 2019 did not identify nearby contamination that would affect the project. No impact would occur.

- c) Would the proposed project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?*

No Impact. The project site is located approximately 0.45 mile southeast from Brisbane Elementary School and 1.2 miles southeast of Robertson Intermediate School. The project does not include uses or activities that would emit hazardous emissions or handle hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school. No impact would occur.

- d) Would the proposed project 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?*

No Impact. A review of regulatory databases, including listed hazardous materials release sites compiled pursuant to Government Code 65962.5 (Cortese List), did not identify any hazardous materials releases at or immediately adjacent to the project site. No impact would occur.

⁷ Although designed to protect stormwater quality, NPDES permit BMPs would also reduce risks associated with hazardous material releases during construction.

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

No Impact. The project site is located 4.7 miles north of the nearest airport, San Francisco International Airport (SFO), and there are no private airstrips in the vicinity. The project site is located outside the SFO's noise contour and approach zone, but all of San Mateo County is located within Airport Influence Area A – Real Estate Disclosure Area. This area is overflowed by aircraft flying to and from SFO at least once per week at altitudes of 10,000 feet or less above mean seal level (AMSL). Projects located within Airport Influence Area A must provide a real estate disclosure to future buyers or lessees identifying the potential for annoyances or inconveniences associated with proximity to the airport. No safety hazards are identified as a potential concern within Airport Influence Area A. Construction workers would be exposed to periodic short-term aircraft overflight noise associated with SFO; however, because the site is located outside the SFO's noise contour and approach zone, the project would not expose people working in the project to excessive noise. No impact would occur.

- f) *Would the proposed project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?*

Less than Significant. Operation of the project would not generate traffic or permanently modify transportation networks that would result in interference with an emergency evacuation plan. However, construction activities could temporarily encroach into the Bayshore Boulevard right-of-way, but a traffic control plan would eliminate or reduce obstruction to emergency providers or evacuation routes (refer to **Section 4.16, Transportation and Traffic**). This impact would be less than significant.

- g) *Would the proposed project directly or indirectly expose people or structures to a significant risk of loss, injury or death involving wildland fires?*

No Impact. The project area is urbanized and not designed as a fire hazard zone (CalFire 2007). Furthermore, the project site is physically separated from areas that could be subject to wildland fires by urban development and infrastructure (CalFire 2006). This buffer would ensure that the project would not directly or indirectly contribute to risk of loss, injury, or death due to a wildland fire. No impact would occur.

Hazards and Hazardous Materials References

California Department of Forestry and Fire Protection (CalFire), 2006. Fire and Resource Assessment Program, Land Cover: Multi-Source Data Compiled for Forest and Range. Available: https://frap.fire.ca.gov/data/frapgismaps/pdfs/fvegwlr13b_map.pdf. Accessed: August 2018.

California Department of Forestry and Fire Protection (CalFire), 2007. Fire and Resource Assessment Program, Fire Hazard Severity Zones in State Responsibility Area (SRA). Available: http://frap.fire.ca.gov/webdata/maps/san_mateo/fhszs_map.41.pdf. Accessed: September 2018.

California Department of Toxic Substances Control. EnviroStor. Available: <https://www.envirostor.dtsc.ca.gov/public/>. Accessed: February 2019.

California Department of Toxic Substances Control. DTSC's Hazardous Waste and Substances Site List-Site Cleanup (Cortese List). Available: https://www.dtsc.ca.gov/SiteCleanup/Cortese_List.cfm. Accessed: August 2018

State Water Resources Control Board. Geotracker. Available: <http://geotracker.waterboards.ca.gov/>. Accessed: February 2019.

Consolidated Airport Land Use Compatibility Plan, 2012. Available: <http://ccag.ca.gov/plansreportslibrary/airport-land-use/>. Accessed: August 2018.

Lowney Associates, 2003. Phase I Environmental Site Assessment, Tunnel Avenue Overpass.

U.S. Department of Transportation National Pipeline Mapping System (NPMS), 2018. Available: <https://www.npms.phmsa.dot.gov/>. Accessed: September 2018.

4.10 HYDROLOGY AND WATER QUALITY

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Substantially degrade water quality and/or violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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 the addition of impervious surfaces, in a manner which would:				
i) result in substantial erosion or siltation on- or off-site;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

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

Less than Significant. The State Water Resources Control Board and nine Regional Water Quality Control Boards regulate water quality of surface water and groundwater bodies throughout California. In the San Francisco Bay Area, including the project site, the San Francisco Bay Regional Water Quality Control Board (RWQCB) is responsible for implementation of the Water Quality Control Plan (Basin Plan). The Basin Plan establishes beneficial water uses for waterways and water bodies within the region. Runoff water quality is regulated by the National Pollutant Discharge Elimination System (NPDES) Program (established through the federal Clean Water Act). The NPDES program objective is to control and reduce pollutant discharges to surface water bodies. Compliance with NPDES permits is mandated by State and federal statutes and regulations. Locally, the NPDES is administered by the RWQCB. According to the water quality control plans of the RWQCB, any construction activities, including grading, that would result in the disturbance of 1 acre or more would require compliance with the General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activity (Construction General Permit).

Construction of the project would involve ground disturbing activities such as excavation, trenching, grading, demolition, and vegetation removal. Construction activities have the potential to result in runoff that contains sediment and other pollutants that could degrade water quality if not properly controlled. Sources of pollution associated with construction include chemical substances from construction materials and hazardous materials, such as fuels. The project site is 50,000 square feet, or approximately 1.15 acres. Therefore, the project would be subject to subject to a NPDES General Construction Permit.

Erosion control requirements are stipulated in the NPDES Permit issued by the RWQCB. These requirements include the preparation and implementation of a stormwater pollution prevention

plan (SWPPP). The purpose of the SWPPP is to identify potential sediment sources and other pollutants and prescribe BMPs to ensure that potential adverse erosion, siltation, and contamination impacts would not occur during construction activities. Implementation of a SWPPP would control erosion and protect water quality from potential contaminants in stormwater runoff emanating from the construction site. BMPs may include damp street sweeping, providing appropriate covers, drains, and storage precautions for outdoor material storage areas, temporary cover of disturbed surfaces, etc., that would help protect water quality. If groundwater is encountered during construction, dewatering activities would also be subject to NPDES Permit provisions. Compliance with the existing NPDES Permit would ensure that development of the project would not violate any water quality standards or waste discharge requirements.

Once operational, the project would not include new impervious surfaces that would generate polluted runoff. As a long-term erosion control project, operation of the project would reduce the likelihood of long-term erosion or sedimentation, and would not otherwise impact water quality.

Given the above, the project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality. This impact would be less than significant.

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

Less than Significant with Mitigation. The project site overlies the Visitacion Valley Groundwater Basin, which encompasses approximately 9,328 acres (San Mateo County Office of Sustainability 2018). A geotechnical report for the Tunnel Avenue Bridge Replacement Project, conducted in 2004 conducted for a bridge replacement project immediately east of the project site, detected groundwater at depths ranging from 4 to 10 feet below existing grades (Lowney 2004). Groundwater levels near the San Francisco Bay are often encountered several feet above mean sea level. Tidally influenced ground water is expected and be managed as part of construction.

The project would not create new areas of impervious surface that would interfere with groundwater recharge. The geo-cell web that would be installed on the project site would allow water infiltration into the groundwater aquifer.

Project construction and operation would have temporary water needs associated with construction activities and three years of irrigation to establish vegetation. It is unlikely that groundwater would be utilized for these water uses. However, if groundwater is used for these water uses, the usage would be temporary and would require minimal amounts of water.

Groundwater may be encountered during project construction. The SWPPP (discussed above) would include measures to prevent groundwater contamination during construction. However,

dewatering at the project site could impact and degrade groundwater quality. This represents a potentially significant impact, reduced to a less-than-significant level with the implementation of **Mitigation Measure HYDRO-1**.

Mitigation Measure HYDRO-1: Dewatering procedures would comply with applicable dewatering provisions typically included in a NPDES Permit, which require surface discharges to be clean or relatively pollutant-free. The project must meet effluent screening requirements for potentially harmful pollutants such as sediments, outlying pH levels, and harmful chemicals. Discharge and receiving water requirements, including water quality objectives, are defined in the Water Quality Control Plan for the San Francisco Bay Basin.

- c) *Would the proposed project substantially alter the existing drainage pattern of the site or area including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:*

- i. *Result in substantial erosion or siltation on- or off-site?*

Less than Significant. Construction of the project would involve ground disturbing activities such as excavation, trenching, and grading, which could mobilize sediment and cause erosion. However, as discussed above in **Section 4.9, Hydrology and Water Quality, Item (a)**, the project's SWPPP would stipulate construction-period erosion control activities, such as damp street sweeping and temporary cover of disturbed surfaces. Upon operation, the project would stabilize soils within Guadalupe Channel by installing a geo-cell web and revegetating the channel banks. The purpose of these improvements is to resist erosion throughout the project's lifetime. Given the above, this impact would be less than significant.

- ii. *Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?*

OR

- iii. *Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?*

Less than Significant. The project would not include any drainage improvements or tie-ins to the municipal stormwater system. During project operation, all stormwater from the project footprint would enter Guadalupe Channel. The banks of Guadalupe Channel would slightly expand the existing channel in the process of grading to reduce bank steepness. This regrading could negligibly increase stormwater runoff into Guadalupe Channel, but would not substantially raise surface water height as it flows through Guadalupe Channel.

Degradation of water quality could occur during project construction as pollutants and/or sediment mobilized by surface runoff enters surface waters. As discussed in above **Section 4.9, Hydrology and Water Quality, Item (a)**, the SWPPP would protect water resources from

potential contaminants in stormwater runoff emanating from the construction site. Upon operation, this passive erosion control project would not generate permanent sources of polluted runoff. This impact would be less than significant.

iv. Impede or redirect flood flows?

Less than Significant. The project site is located within an area of minimal flood hazard, outside the 500-year flood zone and protected by levee from a 100-year flood. The project would not place structures that would impede or redirect flood flows. This impact would be less than significant.

d) Would the proposed project risk release of pollutants due to project inundation in flood hazard, tsunami, or seiche zones?

Less than Significant. According to the Federal Emergency Management Agency (FEMA), tsunamis are a series of large waves created by an underwater disturbance such as an earthquake, landslide, volcanic eruption, or meteorite. A tsunami can move hundreds of miles per hour in the open ocean and reach land with waves as high as 100 feet or more. Given that the San Francisco Bay has never reported any significant tsunami damage, the risk of a tsunami is unlikely. The potential hazard related to tsunamis within the San Francisco Bay has been analyzed in regional studies and mapped for South San Francisco USGS quadrant which shows no inundation areas that coincide with the project site (ABAG 2013).

According to the United States Geological Survey, a seiche is a standing wave in an enclosed or partly enclosed body of water. Seiches are normally caused by an earthquake or high wind activity and can affect harbors, bays, lakes, rivers and canals. Coastal developments are sometimes at risk of inundations associated with tsunamis or other large wave events. The project site is located in the western part of San Francisco Bay, which is not subject to potential flooding by wind-induced seiches because of the predominant eastward winds. In addition, no seismically induced seiche waves have been documented in the San Francisco Bay.

The project site is located in a relatively low-lying area in a developed urbanized region that is not susceptible to mudflows.

The project would not expose people or new structures to a significant risk of loss, injury, or death involving inundation by seiche, tsunami, or mudflow, nor does the project pose a greater risk of pollutant release during such events. Therefore, this impact would be less than significant.

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

Less than Significant. The project is located with the Visitacion Valley groundwater basin (CA DWR 2019), which does not have a sustainable groundwater management plan. As stated in

Section 4.10, Hydrology and Water Quality, Item (b), the project would be unlikely to affect groundwater resources.

The project site is located within the San Francisco Bay Basin (Region 2) and would be subject to restrictions and controls outlined in the associated Basin Plan. As stated in **Section 4.10, Hydrology and Water Quality, Item (a)**, the Basin Plan establishes beneficial water uses for waterways and water bodies within the San Francisco Bay region (CRWQCB 2007). As discussed in **Section 4.4, Biological Resources**, the project includes bank stabilization and revegetation improvements would improve erosion control, and thus water quality, within the tidal habitat. Additionally, the implementation of a SWPPP (discussed in **Section 4.9, Hydrology and Water Quality, Item [a]**) and compliance with standard dewatering provisions (as described in **Mitigation Measure HYDRO-1**) would prevent construction-related water quality impacts. Given the above, the project would not result in water quality impacts that would result interfere with the Basin Plan. This impact would be less than significant.

Hydrology and Water Quality References

Association of Bay Area Governments (ABAG), 1995. Dam Failure Inundation Areas. Available: <http://resilience.abag.ca.gov/wp-content/documents/Map-Plates.pdf>. Accessed: September 2018.

Association of Bay Area Governments (ABAG), 2013. Earthquake Hazard Maps for Brisbane. Available: www.abag.ca.gov/bayarea/eqmaps/pickcity.html. Accessed: September 2018.

California Department of Water Resources (CA DWR) GIS Data, 2019. CA Bulletin 118 Groundwater Basins. Available: http://atlas-dwr.opendata.arcgis.com/datasets/b5325164abf94d5cbeb48bb542fa616e_0?geometry=123.067%2C37.59%2C-121.761%2C37.781. Accessed: April 2019.

California Emergency Management Agency (CalEMA), 2009. Tsunami Inundation Areas for South San Francisco Quadrant. Accessed: September 2018.

California Regional Water Quality Control Board (CRWQCB) San Francisco Bay Region, 2007. San Francisco Bay Basin (Region 2) Water Quality Control Plan (Basin Plan). Available: https://www.waterboards.ca.gov/rwqcb2/water_issues/programs/basin_plan/docs/basic_plan07.pdf. Accessed: April 2019.

Federal Emergency Management Agency (FEMA). Flood Insurance Rate Map for Brisbane California, Panel 06081C0035E. Accessed: September 2018.

Lowney Associates, 2004. "Geotechnical Evaluation Guadalupe Bridge Tunnel Avenue Overhead Project Brisbane, California."

San Mateo County Office of Sustainability, 2018. *Groundwater*. Available: <http://www.smcsustainability.org/energy-water/groundwater/>. Accessed: September 2018.

State Water Resources Control Board, 1997. Fact Sheet for State Water Resources Control Board Water Quality Order No. 97-03-DWQ National Pollutant Discharge Elimination System (NPDES) General Permit No. CAS000001 Waste Discharge Requirements for Discharges of Stormwater Associated with Industrial Activities Excluding Construction Activities.

State Water Resources Control Board, 2001. *Order No. 01-041 Waste Discharge Requirements and Revision of Resolution 58-278 and Cleanup and Abatement Order 94-134.. Available: http://www.swrcb.ca.gov/rwqcb2/board_decisions/adopted_orders/2001/R2-2001-04.1.pdf.* Accessed: September 2018.

4.11 LAND USE AND PLANNING POLICY

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

- a) *Would the proposed project physically divide an established community?*

No Impact. The project does not entail the construction of any surface structures or barriers that would permanently disrupt an established community. No impact would occur.

- b) *Would the proposed project 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?*

Less than Significant. The project site is located within the City and is subject to the City's land use-related plans and regulations. The 1994 Brisbane General Plan Land Use Diagram designates the project site as Public Facilities and Parks, and the project site is zoned C-1 Commercial Mixed-Use District. However, this erosion control project would not interfere with regulations or guidelines outlining suitable land uses.

The San Francisco Bay Conservation and Development Commission (BCDC) regulates uses within the San Francisco Bay and shoreline. BCDC jurisdiction consists of all land within 100 feet of the San Francisco Bay shoreline (BCDC 2008), which encompasses tidal areas of the open Bay and along tidal creeks. In non-marsh areas, BCDC jurisdiction extends to the MHW

elevation. Approximately 3.18 acres of the study area occurs within BCDC jurisdiction, which includes 0.25 acres of Bay and 2.93 acres of Shoreline Band (HTH 2018). A BCDC permit would be required for the activities proposed as part of this project, and would be obtained prior to construction.

Other potential conflicts with plans, policies, or regulations adopted for the purpose of avoiding or mitigating an environmental effect are evaluated within this environmental document. Given the above, the impact would be less than significant.

Land Use and Planning Policy References

City of Brisbane, 1994. The 1994 General Plan.

City of Brisbane, 1991. Brisbane Municipal Code, Chapter 17.12 – C-1 Commercial Mixed-Use District.

City of Brisbane, Zoning Map, 2018. Available:

<http://brisbaneca.org/sites/default/files/ZoningMap2018-08-13.pdf>. Accessed: August 2018.

H. T. Harvey & Associates, 2018. Guadalupe Channel Erosion Project, Regulated Habitats Report.

San Francisco Bay Conservation and Development Commission (BCDC), 2008, 2012. San Francisco Bay Plan. Accessed: September 2018.

4.12 MINERAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:				

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?

Discussion

- a) *Would the proposed 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?*

No Impact. Neither the Brisbane General Plan nor the California Department of Conservation identify important mineral resources within the project site (California Department of Conservation 2015). No impact would occur.

Mineral Resources References

California Department of Conservation, 2015. California Geologic Survey, SMARA Mineral Land Classification Data Portal. Available:
<http://maps.conservations.ca.gov/cgs/informationwarehouse/index.html?map=mlc>, Accessed: August 2018.

City of Brisbane, 1994. The 1994 General Plan.

4.13 NOISE

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project result in:				
a) 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 General Plan and/or noise ordinance?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) For a project located within an airport land use plan or in the vicinity of a private airstrip, would the project expose people residing or working in the area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

- a) *Would the proposed project result in generation of a substantial temporary or permanent increase in ambient noise levels in excess of standards established in the General Plan and/or noise ordinance?*

Less than Significant with Mitigation. Operation of the erosion control improvements included with the project would entail routine maintenance, but would not generate activity that would result in a substantial, temporary, or periodic increase in ambient noise levels. The project entails slope grading and revegetation activities along Guadalupe Channel. Once operational, this facility would not result in any permanent increases in ambient noise. However, project construction-related activities would temporarily increase ambient noise levels.

There are no sensitive receptors in close proximity to the project site. The closest sensitive receptor, Brisbane Community Park, is located 710 feet southwest of the project site. Construction noise from the project site would attenuate due to distance and intervening commercial structures/vegetation before reaching Brisbane Community Park.

Project construction would entail discrete phases, each with a specific mix of equipment and noise characteristics. Construction would begin with earthmoving, vegetation clearing, grubbing, and removal of a retaining wall. This phase would involve the noisiest construction equipment, such as backhoes, bulldozers, and front loaders. Construction would continue with bank grading, installation of the geo-cell web, dredging in Guadalupe Channel, and removal of sediment from the culvert beneath Bayshore Boulevard. These earthmoving activities would require compactors, scrapers, and graders. Typical operating cycles for these types of construction equipment may involve 1 or 2 minutes of full-power operation followed by 3 or 4 minutes at lower power settings. **Table 3** outlines typical noise levels for construction equipment that could be used at the project site.

Table 3 Federal Highway Administration Roadway Default Construction Noise Levels

Equipment Description ¹	Acoustical Usage Factor (%) ²	Spec. 721.560 L _{max} @ 50 feet (dBA) ³	Actual Measured L _{max} @ 50 feet (dBA) ⁴
All Other Equipment > 5 HP	50	85	N/A
Auger Drill Rig	20	85	84
Backhoe	40	80	78
Bar Bender	20	80	N/A
Boring Jack Power Unit	50	80	83
Chain Saw	20	85	84
Compactor (ground)	20	80	83
Compressor (air)	40	80	78
Concrete Batch Plant	15	83	N/A
Concrete Mixer Truck	40	85	79
Concrete Pump Truck	20	82	81
Concrete Saw	20	90	90
Crane	16	85	81
Dozer	40	85	82
Drill Rig Truck	20	84	79
Drum Mixer	50	80	80
Dump Truck	40	84	76
Excavator	40	85	81
Flat Bed Truck	40	84	74
Front End Loader	40	80	79
Generator	50	82	81

Equipment Description¹	Acoustical Usage Factor (%)²	Spec. 721.560 L_{max} @ 50 feet (dBA)³	Actual Measured L_{max} @ 50 feet (dBA)⁴
Generator (<25KVA, VMS Signs)	50	70	73
Gradall	40	85	83
Grader	40	85	N/A
Grapple (on backhoe)	40	85	87
Horizontal Boring Hydraulic Jack	25	80	82
Jackhammer	20	85	89
Man Lift	20	85	75
Paver	50	85	77
Pickup Truck	40	55	75
Pneumatic Tools	50	85	85
Pumps	50	77	81
Refrigerator Unit	100	82	73
Rivit Buster/Chipping Gun	20	85	79
Rock Drill	20	85	81
Roller	20	85	80
Scraper	40	85	84
Sheers (on backhoe)	40	85	96
Soil Mix Drill Rig	50	80	N/A
Tractor	40	84	N/A
Vacuum Excavator	40	85	85
Vacuum Street Sweeper	10	80	82
Ventilation Fan	100	85	79
Vibrating Hopper	50	85	87
Vibratory Concrete Mixer	20	80	80
Warning Horn	5	85	83
Welder/Torch	40	73	74

Source: Federal Highway Administration, 2017.

Notes:

¹The construction of the project would not include the use of all equipment listed herein.

²The acoustical usage factor is used to assume for modeling purposes.

³The specification (spec) limit for each piece of equipment is expressed at a reference distance of 50 foot from the loudest side of the equipment.

According to the Construction Activities section of the City's Noise Control Municipal Code (Chapter 8.28.060), no individual piece of equipment can produce a noise exceeding 83 A-weighted decibels (dBA)⁸ at a distance of 25 feet from the source. Overall construction noise level cannot exceed 86 dBA. Additionally, construction is allowed only between the hours of 7:00 AM and 7:00 PM on weekdays and 9:00 AM to 7:00 PM on weekends and holidays.

Construction would not include create excessive noise generating activities, such as pile driving. Based on typical construction equipment noise estimates (**Table 3**), construction of the project could result in temporary noise levels that exceed the 83 dBA City's threshold at a distance of 25 feet from the source. However, there are no sensitive receptors, such as schools or residential homes, in close proximity to the project site that could be impacted by these temporary noise levels. Furthermore, noise reduction measures prescribed by **Mitigation Measure NOISE-1** would reduce construction-related noise to a less-than-significant level.

Mitigation Measure NOISE-1: The project shall comply with the following noise reduction measures during all construction-related activities under the supervision of a qualified acoustical consultant as a pre-requisite to issuance of a grading permit. These attenuation measures shall include all or any combination of the following control strategies:

- Limit standard construction activities to between 7:00 AM and 7:00 PM Monday through Friday and between 9:00 AM and 7:00 PM on weekends and holidays. No extreme noise-generating activities would be allowed on weekends and holidays;
- Equipment and trucks used for construction shall use the best available noise control techniques (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures, and acoustically attenuating shields or shrouds);
- Impact tools (e.g., jack hammers, pavement breakers, and rock drills) used for construction shall be hydraulically or electrically powered wherever possible to avoid noise associated with compressed air exhaust from pneumatically powered tools. Where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used; this muffler can lower noise levels from the exhaust by up to about 10 dBA. External jackets on the tools themselves shall be used where feasible; this could achieve a reduction of 5 dBA. Quieter procedures, such as use of drills rather than impact tools, shall be used. Individual pieces of construction equipment are prohibited from operating at a noise level in excess of 83 dBA at a distance of 25 feet from the equipment or operating such that the noise level at any point beyond the property line of the project site exceeds 86 dBA.

⁸ A-weighted decibels (dBA): The relative loudness of sound as perceived by the human ear

- b) Would the proposed project result in generation of excessive groundborne vibration or groundborne noise levels?*

Less than Significant. While the project would not generate ground-borne vibration during operation, construction-related activities could generate localized vibration. Although hauling trucks, excavators, and other equipment could cause localized noise and vibration, project construction would not entail the use of machinery or activities that would result in excessive ground-borne vibration, such as pile drivers, vibratory rollers, or blasting. Employees at the Brisbane Fire Department, located approximately 86 feet from the project site, would be unlikely to experience substantive noise or vibration from such construction activities. This impact would be less than significant.

- c) For a project located within an airport land use plan or in the vicinity of a private airstrip, would the proposed project expose people residing or working in the area to excessive noise levels?*

No Impact. As discussed in **Section 4.9, Hazards and Hazardous Materials**, the project site is not within the SFO 65-dB noise contour, and would not involve development of noise-sensitive land uses that would be exposed to aircraft noise. Construction workers would be exposed to periodic short-term aircraft overflight noise associated with SFO; however, because the site is not subject to airport-related noise in excess of applicable standards, no impact would occur.

Noise References

City of Brisbane, 1994. The 1994 General Plan, Chapter X Community Health and Safety.

City of Brisbane, 1987. Code of Ordinances, Chapter 8.28 Noise Control, 8.28.060 Construction Activities. Available:

https://library.municode.com/ca/brisbane/codes/code_of_ordinances?nodeId=TIT8H_ESA_CH8.28NOCO_8.28.060COAC. Accessed: September 2018.

Federal Highway Administration, 2017. Construction Noise Handbook. Available:

https://www.fhwa.dot.gov/Environment/noise/construction_noise/handbook/handbook09.cfm. Accessed: October 2018.

4.14 POPULATION AND HOUSING

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Induce substantial unplanned population growth in the area, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing housing units or persons, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

- a) *Would the proposed project induce substantial unplanned population growth in an area, either directly or indirectly?*

No Impact. The project does not include land uses that would induce population growth. Construction would temporarily increase the number of regional construction jobs, but given the small scope and short duration of construction activities, the project would not induce substantial permanent population growth in the area. No impact would occur.

- b) *Displace substantial numbers of existing housing units or persons, necessitating the construction of replacement housing elsewhere?*

No Impact. There is no existing housing on the project site, and the project would not displace existing residents. No impact would occur.

4.15 PUBLIC SERVICES

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:				
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 type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iii) Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv) Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
v) Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

a) *Would the project 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. *Result in substantial adverse physical impacts associated with the provision of new or physically altered fire protection facilities in order to maintain acceptable service ratios, response times, or other performance objectives?*

No Impact. The North County Fire Authority (NCFA) serves the communities of Brisbane, Daly City, and Pacifica. The City is primarily served by Fire Station #81, which is located immediately northeast of the project site on Bayshore Boulevard and Tunnel Avenue. The project does not include any residential components that would induce population growth or increase demand for fire services, and would not affect NCFA's existing service ratio or require new or expanded facilities. No impact would occur.

ii. *Result in substantial adverse physical impacts associated with the provision of new or physically altered police protection facilities in order to maintain acceptable service ratios, response times, or other performance objectives?*

No Impact. The project would be served by the Brisbane Police Department, which operates from a facility located 0.13 mile west of the project site. The project does not include any residential components that would induce population growth or increase demand for police services, and would not affect Brisbane Police Department's existing service ratio or require new or expanded facilities. No impact would occur.

iii. *Result in substantial adverse physical impacts associated with the provision of new or physically altered public school facilities in order to maintain acceptable service ratios or other performance objectives?*

No Impact. The project would not include new residential development that would permanently increase population or generate new student-aged children. As such, the project would not increase demand for school services or require the construction or expansion of school facilities. No impact would occur.

iv. *Result in substantial adverse physical impacts associated with the provision of new or physically altered public park or recreation facilities in order to maintain acceptable service ratios or other performance objectives?*

Less than Significant. The project does not include residential land uses that would induce permanent population growth, thus requiring new or expanded park facilities. This impact would be less than significant.

- v. *Result in substantial adverse physical impacts associated with the provision of other new or physically altered public facilities in order to maintain acceptable service ratios, response times, or other performance objectives?*

No Impact. The project would not result in a permanent population increase, and as such, would not result in increased demand for other public services, including libraries, community centers, or public health care facilities. No impact would occur.

Public Services References

City of Brisbane. About the Brisbane Fire Department-North County Fire Authority. Available: <http://brisbaneca.org/about-brisbane-fire-department-north-county-fire-authority>. Accessed: September 2018.

City of Brisbane. About the Police Department. Available: <http://brisbaneca.org/departments/police/about>. Accessed: September 2018.

4.16 RECREATION

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:				
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

- a) *Would the proposed 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?*

OR

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

Less than Significant. The project does not include residential development that would induce permanent population growth and increase demand for recreational facilities. This impact would be less than significant.

4.17 TRANSPORTATION

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

- a) *Would the proposed project conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?*

Less than Significant. During construction, the project would add vehicle trips to the surrounding roadways as construction workers and vehicles enter/exit the project site. However, construction-related trips represent a negligible traffic increase, would cease after construction, and would not permanently impact traffic circulation in the area. Project operation would require occasional maintenance visits, but would not substantially affect the capacity of the local street system. Therefore, no conflicts with the General Plan and the circulation system would occur.

Bayshore Boulevard includes Class II bike lanes and a partial sidewalk on the northbound side. As stated above, project construction may obstruct the Bayshore Boulevard right-of-way, and an encroachment permit would be required. Preparation of a Traffic Control Plan (TCP), as required of an encroachment permit, would ensure that the project would not conflict with established public transit, bicycle, or pedestrian facilities. During construction, the existing bike lanes would be retained or “Share the Road/Bicycles May Use Full Lane” construction signs would be placed along Bayshore Boulevard to indicate the temporary road conditions. Additionally, the speed limit on Bayshore Boulevard would be reduced to 25 miles per hour during construction. The project does not include permanent land uses or roadway modifications that would interfere with adopted transit policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities. This impact would be less than significant.

- b) Would the project conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?*

Less than Significant. CEQA Guidelines Section 15064.3 describes specific considerations for evaluating a project's transportation impacts. Generally, vehicle miles traveled is the most appropriate measure of transportation impacts. For the purposes of this section, "vehicle miles traveled" refers to the amount and distance of automobile travel attributable to a project.

As discussed above in **Section 4.17, Transportation, Item (a)**, construction-related traffic would represent a negligible traffic increase, which would cease after construction ends. The project does not include result facilities, such as residences, offices, or public parks, which would generate automobile trips. Given the above, the project would not increase vehicle miles travelled. This impact would be less than significant.

- c) Would the proposed project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?*

OR

- d) Would the proposed project result in inadequate emergency access?*

Less than Significant. The project does not include new transportation facilities and would not permanently affect nearby transportation facilities or emergency access. Project construction would require access to the banks of Guadalupe Channel, which could encroach on the Bayshore Boulevard right-of-way. The City requires an encroachment permit if project construction would obstruct or divert vehicular or pedestrian traffic along Bayshore Boulevard. The encroachment permit also stipulates that "no work, traffic control, lane closures, or traffic detours will be allowed within traffic lanes of the [Bayshore Boulevard] before 9:00 AM. or after 4:00 PM" (Encroachment Permit [Traffic] 2018). The encroachment further requires that the applicant prepare a TCP, which establishes measures to ensure that emergency access to the project site is maintained throughout project construction. With compliance with the encroachment permit and TCP, the project would not increase hazards due to a design feature or obstruct emergency access. This impact would be less than significant.

Transportation and Traffic References

City/County Association of Governments of San Mateo County (C/CAG), 2015. Final San Mateo County Congestion Management Program 2015. Available:
<http://ccag.ca.gov/wp-content/uploads/2018/03/2017-CMP-Final-v2.0.pdf>. Accessed: September, 2018.

City of Brisbane, 2018. Public Works Permits. Encroachment Permit (Traffic). Available:
http://brisbaneca.org/sites/default/files/PERMIT_Traffic_180720.pdf. Accessed: October, 2018.

4.18 TRIBAL CULTURAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) 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 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)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Discussion

- a) *Would the project cause a substantial adverse change in the significance of 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

Would the project cause a substantial adverse change in significance of 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?

Less than Significant with Mitigation. As established by subdivision (c) of Public Resources Code Section 5024.1, tribal cultural resources are sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a tribe that are listed, or determined to be eligible for listing, in the national, state, or local register of historical resources. Additionally, a tribal cultural resource may also be a resource that the lead agency determines, in its discretion, is a tribal cultural resource.

The Sacred Lands File, operated by the Native American Heritage Commission (NAHC), is a confidential set of records containing places of religious or social significance to Native Americans. NAHC prepared a Sacred Lands File search for the project site on January 30, 2018 (included as **Appendix E**). The NAHC response on February 15, 2018 indicated that no known Native American cultural resources exist within the project vicinity. The NAHC results noted, however, that the absence of specific site information in the Sacred Lands File does not indicate the absence of Native American cultural resources in the project vicinity. Included with the response was a list of six Native American representatives who could provide site-specific knowledge on local Native American cultural resources.

To help determine whether a project may cause a substantial adverse change in the significance of a tribal cultural resource, the City contacted the Native American tribes traditionally and culturally affiliated with the geographic area of the project. On September 28, 2018, the City submitted a request to the Amah Mutsun Tribal Band of Mission San Juan Bautista, Coastanoan Rumsen Carmel Tribe, Muwekma Ohlone Indian Tribe of the San Francisco Bay Area, the Ohlone Indian Tribe, and the Indian Canyon Mutsun Band of Costanoan for further information regarding potential tribal resources within the project vicinity. The correspondence contained information about the project; an inquiry for any unrecorded Native American cultural resources or other areas of concern within or adjacent to the project site; and a solicitation of comments, questions, or concerns with regard the project. The City did not receive responses to this notice that identified resources of potential concern.

As previously discussed in **Section 4.5, Cultural Resources**, the CHRIS records search did not identify archeological or historic architectural resources in the project vicinity. However, Native American resources have been found in areas marginal to the San Francisco Bayshore and inland near creeks and other portions of City contains several known prehistoric archaeological sites. Given this, the project could disturb unmarked prehistoric archaeological or Native American burial sites during construction. **Mitigation Measures CUL-1 and CUL-2** would ensure adequate protection of these resources, if encountered during construction. This impact would be less than significant with mitigation.

Tribal Cultural Resources References

Native American Heritage Commission, 2018. Brisbane Guadalupe Channel Erosion Control Project, San Mateo County Letter.

Native American Heritage Commission, 2018. Native American Heritage Commission Native American Contacts.

4.19 UTILITIES AND SERVICE SYSTEMS

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities the construction or relocation of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in a determination by the wastewater treatment provider that it has adequate capacity to serve the project's projected demand in addition to its existing commitments	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a demand for energy that exceeds regional or local capacity?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) 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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Comply with adopted federal, state, or local management and reduction statutes or regulations related to solid waste and diversion of wastes from landfills?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

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

OR

- b) *Would the proposed project result in a determination by the wastewater treatment provider that it has adequate capacity to serve the project's projected demand in addition to its existing commitments?*

OR

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

Less than Significant. The project does not include residential, industrial, or commercial elements that would generate wastewater. Therefore, the project would not require new or expanded wastewater facilities.

The project would require water for temporary construction activities, such as dust management and vehicle cleaning, but this water demand would end after the construction period. This impact would be less than significant during construction.

Project operation would require irrigation for to establish new vegetation during the initial three years of project operation. The water supply for this irrigation system would consist of sprinklers or a watering truck. Since these water uses would be temporary and would require a small amount of water, the project would not be expected to exceed existing water entitlements and would not require new or expanded water treatments facilities. This impact would be less than significant during operation.

- d) *Would the proposed project create a demand for energy that exceeds regional or local capacity, either on a peak or cumulative basis?*

Less than Significant. As discussed in **Section 4.6, Energy**, the project would not require the use of energy during operations. Construction equipment would require temporary fuel and energy usage, but these negligible energy demands would not exceed regional or local energy capacity. This impact would be less than significant.

- e) *Would the proposed 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?*

OR

- f) *Would the proposed project comply with adopted federal, state, or local management and reduction statutes or regulations related to solid waste and diversion of wastes from landfills?*

Less than Significant. Operation of the project would not generate solid waste because it would not consist of activity that would require solid waste disposal. However, project construction would require disposal of vegetation from grubbing, sediment from grading or dredging, and demolition debris generated by removal of the sheet pile wall. The materials accumulated from these activities would be disposed of in a landfill.

Chapter 15.75 of the Brisbane Municipal Code establishes requirements for solid waste diversion and recycling. Section 15.75.030 requires that construction and demolition debris

generated from every covered project be diverted from going to a landfill by using recycling, reuse, and diversion programs to achieve the following diversion rates:

- Demolition: One hundred percent of inert solids, trees, stumps, and associated vegetation and fifty percent of the remaining demolition debris tonnage.
- Construction, remodeling and re-roofing projects: Fifty percent of all construction and demolition debris tonnage.

Thus, a minimum of 50 percent of construction waste generated within the project site would need to be recycled or reused. The remainder of the solid waste would be sent to local area landfills. The combined remaining capacity of the local area landfills is 200,492,708 cubic yards (CalRecycle 2016d). Considering the solid waste from construction of the project represents a small proportion of remaining landfill capacity, there is adequate existing landfill capacity to dispose of construction waste. Furthermore, the project would comply with existing laws, regulations, and local policies regarding solid waste. This impact would be less than significant.

Utilities and Service Systems References

CalRecycle, 2018. Estimated Solid Waste Generation Rates, Available:

<https://www2.calrecycle.ca.gov/wastecharacterization/general/rates#Service>. Accessed: August 2018.

CalRecycle, 2016b. Solid Waste Information System Website for Landfills Receiving Solid Waste from the City of Brisbane. Available: <http://www.calrecycle.ca.gov/SWFacilities/> Accessed: October 2016.

CalRecycle, 2016c. Solid Waste Information System Website for Potrero Hills Landfill and Kirby Canyon Landfill. Available at: <http://www.calrecycle.ca.gov/SWFacilities/Directory>. Accessed: October 2016.

CalRecycle, 2016d. CalRecycle Disposal Reporting System Jurisdictional Disposal by Facility Data for the City of Brisbane. Available at:
<http://www.calrecycle.ca.gov/lgcentral/Reports/DRS/Destination/JurDspFa.aspx>. Accessed: January 2013.

CalRecycle, 2016. Jurisdictional Profile for City of Brisbane, Overall Waste Stream: Diversion. Available: <http://www.calrecycle.ca.gov/lgcentral/Reports/DRS/Destination/JurDspFa.aspx>. Accessed: September 2018.

City of Brisbane, 2016. Public Works (includes information on Sewer and Water). Available: <http://www.ci.brisbane.ca.us/about-public-works>. Accessed: September 2018

City of Brisbane, 1993. *City of Brisbane 1993 General Plan Environmental Impact Report Volume 1: Environmental Setting*, December 1993. Palo Alto, California, prepared by Thomas Reid Associates, 1993.

4.20 WILDFIRE

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

Discussion

Environmental Setting

The California Department of Forestry and Fire Protection (CAL FIRE) identifies fire hazards based on relevant factors such as fuels, terrain, and weather. The project site is within a non-Very High Fire Hazard Severity Zone, and it is not within a state responsibility area (CAL FIRE 2008). Additionally, Chapter X, Community Health and Safety, of the City's General Plan does not classify the project site as an area of fire hazard. The project would not result in wildfire impacts.

Wildfire References

California Department of Forestry and Fire Protection (CAL FIRE), 2008. Very High Fire Hazard Severity Zones, Available:

http://www.fire.ca.gov/fire_prevention/fhsz_maps_sammateo. Accessed: March 2019.

City of Brisbane, 1994. The 1994 General Plan, Chapter X Community Health and Safety.

4.21 MANDATORY FINDINGS OF SIGNIFICANCE

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Does the project have impacts that are individually limited, but cumulatively considerable?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Does the project have environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

- a) *Does the proposed project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?*

Less than Significant with Mitigation. As described in **Section 4.4, Biological Resources**, the project site could harbor special-status species or other protected biological resources. However, **Mitigation Measures BIO-1** through **BIO-3** would reduce potential biological impacts. With implementation of these mitigation measures, the project would not 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.

As described in **Section 4.5, Cultural Resources**, ground-disturbing activities could disturb unknown archaeological or paleontological resources during project construction. These resources could include examples of the major periods of California history or prehistory. However, **Mitigation Measures CUL-1** and **CUL-2** would ensure adequate protection of these resources, if encountered during construction. With implementation of these mitigation measures, the project would eliminate important examples of the major periods of California history or prehistory.

- b) Does the proposed project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?*

Less than Significant with Mitigation. The project would result in potentially significant project-level impacts related to air quality, biological resources, cultural resources, geology, soils, and seismicity, and noise. All other impacts of the project were determined either to have no impact or to be less than significant without the need for mitigation. Mitigation measures outlined in within this Initial Study shall be implemented to reduce project-level impacts to a less-than-significant level. As such, the project would not result in any significant impacts that would substantially combine with impacts of other current or probable future projects. Therefore, the project would not considerably contribute to significant cumulative impacts.

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

Less than Significant. Implementation of the project would not result in significant unavoidable impacts. Additionally, mitigation measures identified herein would reduce all potential impacts to a less-than-significant level. Therefore, the project would not result in impacts that would cause substantial adverse effects on human begins, either directly or indirectly.

**City of Brisbane
Guadalupe Channel Erosion Control Project**

Mitigation, Monitoring, and Reporting Program

Prepared By:

Circlepoint

200 Webster Street, Suite 200

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Prepared For:

City of Brisbane

Planning Division

50 Park Place

Brisbane, CA 94005

January 2020

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Table 1 – Mitigation, Monitoring, and Reporting Program

Environmental Factor	Mitigation Measures	Significance After Mitigation	Responsible Entity	Timing
Air Quality	<p>Mitigation Measure AQ-1: During any construction period ground disturbance, the applicant shall ensure that the Project contractor implement measures to control dust and exhaust.</p> <ol style="list-style-type: none"> 1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day. 2. All haul trucks transporting soil, sand, or other loose material off-site shall be covered. 3. 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. 4. All vehicle speeds on unpaved roads shall be limited to 15 miles per hour (mph). 5. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used. 6. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 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. 7. 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. <p>Post a publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The BAAQMD's phone number shall also be visible to ensure compliance with applicable regulations.</p>	Less than Significant	Construction Contractor	During Construction

Environmental Factor	Mitigation Measures	Significance After Mitigation	Responsible Entity	Timing
Biological Resources	<p>Mitigation Measure BIO-1: Prior to dewatering activities in Guadalupe Channel, qualified biologists will use nets to exclude fish from the construction area. During the low end of a falling tide, a block net would be placed at the upper end of the reach to be dewatered. Subsequently, qualified biologists would walk from the upper to lower end of the reach with a net stretched across the channel to encourage fish to move out of the construction area. When the lower end of the construction area is reached, a second block net would be installed to isolate the construction reach. This procedure would be repeated a minimum of three times per dewatered tidal reach to ensure that no fish, including Central California coast steelhead or longfin smelt, remain within the construction area. Mesh size would not exceed 9.5 millimeters to ensure that longfin smelt, as well as all other native fish that may be present in the channel, are adequately excluded from this area. These nets would be maintained in place until the coffer dam has been constructed to isolate the in-channel work area from areas in which fish occur.</p>	Less than Significant	Project Proponent / Qualified Biologist	Prior to Construction

Environmental Factor	Mitigation Measures	Significance After Mitigation	Responsible Entity	Timing
Biological Resources	<p>Mitigation Measure BIO-2: To the extent feasible, construction activities shall be scheduled to avoid the nesting season. If construction activities are scheduled to take place outside the nesting season, all impacts on nesting birds protected under the MBTA and California Fish and Game Code will be avoided. The nesting season for most birds in San Mateo County extends from February 1 through August 31.</p> <p>If it is not possible to schedule construction activities between September 1 and January 31, then preconstruction surveys for nesting birds shall be conducted by a qualified ornithologist to ensure that no nests will be disturbed during project implementation. These surveys shall be conducted no more than seven days prior to the initiation of construction activities. During this survey, the ornithologist would inspect all trees and other potential nesting habitats (e.g., trees, shrubs, ruderal grasslands, buildings) in and immediately adjacent to the impact areas for nests.</p> <p>If an active nest is found sufficiently close to work areas to be disturbed by these activities, the ornithologist would determine the extent of a construction-free buffer zone to be established around the nest (typically 300 feet for raptors and 100 feet for other species), to ensure that no nests of species protected by the MBTA and California Fish and Game Code would be disturbed during project implementation.</p> <p>If construction activities cannot be initiated until after the start of the nesting season, all potential nesting substrates (e.g., bushes, trees, grasses, and other vegetation) scheduled to for removal by the project may be removed prior to the start of the nesting season (e.g., prior to February 1). This would preclude the initiation of nests in this vegetation, and prevent the potential delay of the project due to the presence of active nests in these substrates.</p>	Less than Significant	Project Proponent / Construction Contractor / Qualified Biologist	Prior to Construction

Environmental Factor	Mitigation Measures	Significance After Mitigation	Responsible Entity	Timing
Biological Resources	<p>Mitigation Measure BIO-3: All disturbed upland and riparian soils would be stabilized and planted with a native seed mix from seed sourced from local genotypes following construction. All straw used as erosion control materials for the project would be certified weed-free. The removed vegetation, much of which is invasive, would be collected and completely removed from the project site. This material would be disposed of in a legally operating landfill so that propagules are not spread to other areas. All equipment used to remove project vegetation would be washed prior to use on another project site.</p>	Less than Significant	Qualified Biologist	During Construction
Cultural Resources	<p>Mitigation Measure CUL-1: If historic or archaeological materials are discovered during ground disturbing activities, project construction would cease within a 50-foot radius of the discovery in order to proceed with the testing and mitigation required under Section 7050.5(b) of the California Health and Safety Code and Section 5097.94 of the Public resources Code of the State of California. The State Historic Preservation Officer would be contacted as soon as possible. Construction in the affected area would not resume until the regulations of the Advisory council on Historic Preservation (36 CFR Part 800) have been satisfied.</p>	Less than Significant	Project Proponent/Construction Contractor	During Construction
Cultural Resources	<p>Mitigation Measure CUL-2: In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the human remains are discovered has determined, in accordance with Chapter 10 (commencing with Section 27460) of Part 3 of Division 2 of Title 3 of the Government Code, that the remains are not subject to the provisions of Section 27492 of the Government Code or any other related provisions of law concerning investigation of the circumstances, manner and cause of death, and the recommendations concerning treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative, in the manner provided in Section 5097.94 of the Public Resources Code.</p>	Less than Significant	Project Proponent/Construction Contractor	During Construction

Environmental Factor	Mitigation Measures	Significance After Mitigation	Responsible Entity	Timing
Geology and Soils	<p>Mitigation Measure GEO-1: Prior to approval of a grading plan, a licensed geotechnical or soil engineer shall prepare a design-level geotechnical report outlining site-specific construction methods and recommendations regarding grading activities, fill placement, soil corrosivity/expansion/erosion potential, compaction, foundation construction, drainage control (both surface and subsurface), and avoidance of settlement, liquefaction, differential settlement, and seismic hazards in accordance with current California Building Code requirements including Chapter 16, Section 1613. The report shall require that all subsurface improvements that include any materials susceptible to corrosive effects would be engineered in conformance with the most recently adopted California Building Code requirements including the use of engineered backfill. The report shall also include stability analyses of final design cut and fill slopes, including recommendations for avoidance of slope failure. The final grading plan shall be designed and constructed in accordance with requirements of the final design-level geotechnical investigation prior to building.</p>	Less than Significant	Licensed Geotechnical Engineer / Project Proponent	Prior to Construction
Geology and Soils	<p>Mitigation Measure GEO-2: Discovery of a paleontological specimen during any phase of the Project shall result in a work stoppage in the vicinity of the find until it can be evaluated by a professional paleontologist. Should loss or damage be detected, additional protective measures or further action (e.g., resource removal), as determined by a professional paleontologist, shall be implemented to mitigate the impact.</p>	Less than Significant	Professional Paleontologist / Project Proponent / Construction Contractor	During Construction

Environmental Factor	Mitigation Measures	Significance After Mitigation	Responsible Entity	Timing
Geology and Soils	<p>Mitigation Measure GEO-1: Prior to the City's approval of a grading plan, a licensed geotechnical engineer shall prepare a design-level geotechnical report outlining site-specific construction methods and recommendations regarding grading activities, fill placement, soil corrosivity, soil expansion, soil compaction, drainage control, and avoidance of seismic hazards, liquefaction, and differential settlement in accordance with current California Building Code requirements or an equivalent standard approved by the City. The report shall require that all subsurface improvements that include any materials susceptible to corrosive effects would be engineered in conformance with the most recently adopted California Building Code requirements including the use of engineered backfill. The report shall also include stability analyses of final design cut and fill slopes, including recommendations for avoidance of slope failure. The final grading plan shall be designed in accordance with requirements of the design-level geotechnical investigation.</p>	Less than Significant	Licensed Geotechnical Engineer / Project Proponent	Prior to Construction
Geology and Soils	<p>Mitigation Measure GEO-2: Discovery of a paleontological specimen during any phase of the Project shall result in a work stoppage in the vicinity of the find until it can be evaluated by a professional paleontologist. Should loss or damage be detected, additional protective measures or further action (e.g., resource removal), as determined by a professional paleontologist, shall be implemented to mitigate the impact.</p>	Less than Significant	Professional Paleontologist / Project Proponent / Construction Contractor	During Construction
Hydrology and Water Quality	<p>Mitigation Measure HYDRO-1: Dewatering procedures would comply with applicable dewatering provisions typically included in a NPDES Permit, which require surface discharges to be clean or relatively pollutant-free. The project must meet effluent screening requirements for potentially harmful pollutants such as sediments, outlying pH levels, and harmful chemicals. Discharge and receiving water requirements, including water quality objectives, are defined in the Water Quality Control Plan for the San Francisco Bay Basin.</p>	Less than Significant	Project Proponent/ Construction Contractor	Prior to Construction

Environmental Factor	Mitigation Measures	Significance After Mitigation	Responsible Entity	Timing
Noise	<p>Mitigation Measure NOISE-1: The project shall comply with the following noise reduction measures during all construction-related activities under the supervision of a qualified acoustical consultant as a pre-requisite to issuance of a grading permit. These attenuation measures shall include all or any combination of the following control strategies:</p> <ul style="list-style-type: none"> • Limit standard construction activities to between 7:00 AM and 7:00 PM Monday through Friday and between 9:00 AM and 7:00 PM on weekends and holidays. No extreme noise-generating activities would be allowed on weekends and holidays; • Equipment and trucks used for construction shall use the best available noise control techniques (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures, and acoustically attenuating shields or shrouds); • Impact tools (e.g., jack hammers, pavement breakers, and rock drills) used for construction shall be hydraulically or electrically powered wherever possible to avoid noise associated with compressed air exhaust from pneumatically powered tools. Where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used; this muffler can lower noise levels from the exhaust by up to about 10 dBA. External jackets on the tools themselves shall be used where feasible; this could achieve a reduction of 5 dBA. Quieter procedures, such as use of drills rather than impact tools, shall be used. Individual pieces of construction equipment are prohibited from operating at a noise level in excess of 83 dBA at a distance of 25 feet from the equipment or operating such that the noise level at any point beyond the property line of the project site exceeds 86 dBA. 	Less than Significant	Project Proponent / Construction Contractor	During Construction

To: Karen Kinser
City of Brisbane Planning Division
50 Park Place
Brisbane, CA 94005

From: Alex Casbara
Circlepoint
200 Webster Street, Suite 200
Oakland, CA 94607

Subject: Guadalupe Channel Erosion Control Project Response to Public Comments

Date: January 3, 2020

Dear Ms. Kinser,

The intent of this memorandum is to provide responses to comments received on the Guadalupe Channel Erosion Control Project Initial Study/Proposed Mitigated Negative Declaration (IS/Proposed MND), which was circulated for public review from October 10, 2019 to November 27, 2019.

Pursuant to *California Environmental Quality Act (CEQA) Statute and Guidelines*, Section 15204, a lead agency is required to provide responses to comments that question the adequacy of the environmental analysis in the environmental document. A total of one (1) comment letter was received to date. The comment letter is referred to as **Comment Letter A** and is provided below as well as all responses to the comments provided in the letter. These comments do not affect the adequacy of the IS/Proposed MND. Therefore, no changes need to be made to the IS/Proposed MND in response to public comments.

Comment Letter A: California Department of Fish and Wildlife



State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
Bay Delta Region
2825 Cordelia Road, Suite 100
Fairfield, CA 94534
(707) 428-2002
www.wildlife.ca.gov

GAVIN NEWSOM, Governor
CHARLTON H. BONHAM, Director



November 19, 2019

Ms. Karen Kinser
Deputy Director of Public Works
City of Brisbane
50 Park Place
Brisbane CA 94005
kkinser@brisbaneca.org

Subject: Guadalupe Channel Erosion Control Project, Initial Study/Mitigated Negative Declaration, SCH #2019109080, City of Brisbane, San Mateo County

Dear Ms. Kinser:

The California Department of Fish and Wildlife (CDFW) has reviewed the Initial Study/Mitigated Negative Declaration (IS/MND) prepared by the City of Brisbane for the proposed Guadalupe Channel Erosion Control Project (Project) located in the County of San Mateo. CDFW is submitting comments on the IS/MND regarding potential impacts to biological resources associated with the proposed Project.

CDFW is a Trustee Agency with responsibility under the California Environmental Quality Act (CEQA) §15386 for commenting on projects that could impact fish, plant, and wildlife resources. CDFW is also considered a Responsible Agency if a project would require discretionary approval, such as approval under the California Endangered Species Act (CESA), the Native Plant Protection Act, the Lake and Streambed Alteration (LSA) Program and/or other provisions of the Fish and Game Code that afford protection to the State's fish and wildlife trust resources. Pursuant to our jurisdiction, CDFW offers the following comments and recommendations regarding the Project.

PROJECT DESCRIPTION AND LOCATION

The proposed Project includes the bank stabilization of approximately 400 linear feet of Guadalupe Channel between a culvert beneath the Bayshore Boulevard/Valley Drive intersection and the Machinery Road bridge structure immediately south of the Brisbane Fire Department Station.

Bank stabilization includes laying back the incised stream channel to a 2:1 ratio and installation of geo-cell web to prevent vegetation from falling into the Guadalupe Channel.

ENVIRONMENTAL SETTING

The special-status species that are known to occur, or have the potential to occur in or near the Project site, include:

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- Alameda song sparrow (*Melospiza melodia pusilla*), a state species of special concern;
- Bryant's savannah sparrow (*Passerculus sandwichensis alaudinus*), a state species of special concern;
- Central California Coast steelhead (*Oncorhynchus mykiss*), a federally listed threatened species under the Federal Endangered Species Act (ESA);
- Longfin smelt (*Spirinchus thaleichthys*), a federal candidate species under ESA and a state listed threatened species under CESA;
- Loggerhead shrike (*Lanius ludovicianus*), a state species of special concern;
- Pallid bat (*Antrozous pallidus*), a state species of special concern; and
- San Francisco common yellowthroat (*Geothlypis trichas sinuosa*), a state species of special concern.

COMMENTS

Comment A-01: Geo-cell Web

A-01 CDFW strongly recommends that the Project incorporate biotechnical engineering design elements within the bed, bank, and channel of the Guadalupe Channel rather than using geo-cell web, a permanent, petroleum-based material. Removing the geo-cell web material from the Project would avoid fish and wildlife entanglement and release of debris into the channel resulting from degradation of this material.

It is our understanding that there are other alternatives in use that will not risk entanglement. Coordination with CDFW on specific design concepts is also strongly recommended.

Comment A-02: Cause of Stream Erosion

A-02 It is unclear whether the Project addresses the cause for stream erosion. The IS/MND states that the Project purpose is to prevent trees from falling and causing flow obstruction and erosion; however, the IS/MND also states that moderately high stream velocities is the cause of stream erosion. CDFW recommends clarifying what is causing stream erosion and provide justification that the Project is addressing the cause of stream erosion.

Comment A-03: Further Stream Erosion

A-03 Please include a detailed explanation if further stream erosion is expected after Project completion.

CDFW is concerned that, after Project completion, further stream erosion may occur and expose the geo-cell web. The exposed geo-cell web may entrain fish and wildlife species as well as cause trash.

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A-04

Comment A-04: CESA Permit for Longfin Smelt

Based on information provided in the IS/MND, it appears that an Incidental Take Permit may be warranted for longfin smelt, a species listed as threatened under CESA. Page 18 of the IS/MND states that longfin smelt may be present in the tidal reaches of sloughs in the San Francisco South Bay, and stray individuals could occur within the reach of the Guadalupe Channel within the Project site. Page 20 further states that if longfin smelt is present within the work area when construction occurs, they could be injured or killed as a result of stranding or relocation efforts. Such activities are considered take by CESA.

REGULATORY REQUIREMENTS

California Endangered Species Act

Please be advised that a CESA Permit must be obtained if the Project has the potential to result in "take" of plants or animals listed under CESA, either during construction or over the life of the Project. Issuance of a CESA Permit is subject to CEQA documentation; the CEQA document must specify impacts, mitigation measures, and a mitigation monitoring and reporting program. If the Project will impact CESA listed species, early consultation is encouraged, as significant modification to the Project and mitigation measures may be required in order to obtain a CESA Permit.

CEQA requires a Mandatory Finding of Significance if a project is likely to substantially impact threatened or endangered species [CEQA section 21001(c), 21083, and CEQA Guidelines section 15380, 15064, 15065]. Impacts must be avoided or mitigated to less-than-significant levels unless the CEQA Lead Agency makes and supports Findings of Overriding Consideration (FOC). The CEQA Lead Agency's FOC does not eliminate the Project proponent's obligation to comply with Fish and Game Code section 2080.

Lake and Streambed Alteration Program

Notification is required, pursuant to CDFW's Lake and Streambed Alteration Program (Fish and Game Code section 1600 et. seq.) for any Project-related activities that will substantially divert or obstruct the natural flow; change or use material from the bed, channel, or bank including associated riparian or wetland resources; or deposit or dispose of material where it may pass into a river, lake or stream. Work within ephemeral streams, washes, watercourses with a subsurface flow, and floodplains are subject to notification requirements. CDFW, as a Responsible Agency under CEQA, will consider the CEQA document for the Project. CDFW may not execute the final LSA Agreement until it has complied with CEQA (Public Resources Code section 21000 et seq.) as the responsible agency.

FILING FEES

CDFW anticipates that the Project will have an impact on fish and/or wildlife, and assessment of filing fees is necessary (Fish and Game Code section 711.4; Pub. Resources

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Code, section 21089). Fees are payable upon filing of the Notice of Determination by the Lead Agency and serve to help defray the cost of environmental review by CDFW.

Thank you for the opportunity to comment on the Project's draft IS/MND. If you have any questions, please contact Ms. Monica Oey, Environmental Scientist, at (707) 428-2088 or monica.oey@wildlife.ca.gov; or Ms. Randi Adair, Senior Environmental Scientist (Supervisory), at (707) 576-2786 or randi.adair@wildlife.ca.gov.

Sincerely,



Gregg Erickson
Regional Manager
Bay Delta Region

cc: State Clearinghouse #2019109080

Katerina Galacatos, U.S. Army Corps of Engineers
katerina.galacatos@usace.army.mil

Tahsa Sturgis, San Francisco Bay Regional Water Quality Control Board
tahsa.sturgis@waterboards.ca.gov

Katie Hart, San Francisco Bay Regional Water Quality Control Board
kathryn.hart@waterboards.ca.gov

Response to Comment Letter A, California Department of Fish and Wildlife

Response to Comment A-01: As described on page 2 of **Section 2.0, Project Description** of the IS/Proposed MND, the project includes geo-cell web for erosion control. Changes in the erosion control material are not under consideration at this point in the environmental review process. While geo-cell webs are constructed from materials not likely to degrade from weathering, which could result in wildlife entrapment, the City acknowledges the CDFW's concern for the use of geo-cell web materials. The City will continue to coordinate with the CDFW regarding erosion control materials during the permitting process. This comment is part of the administrative record and will be considered during project approval but does not raise issues with the adequacy of the IS/Proposed MND.

Response to Comment A-02: The project is not intended to address the primary cause of stream erosion in the Guadalupe Channel; instead, the project would prevent exacerbation of conditions that induce further erosion, such as loose vegetation and exposed slopes. The IS/Proposed MND states that the primary cause of erosion in Guadalupe Channel is high stream velocities that displace vegetation, which removes the natural reinforcement from the channel sides. As stated on page 2 of **Section 2.0, Project Description** of the IS/Proposed MND, the purpose of the project is to "prevent vegetation falling into the Guadalupe Channel, which could obstruct flow and expose slopes to erosion." In addition, the project description states that "moderately high flow velocities through Guadalupe Channel can cut and erode the non-reinforced channel sides, especially where they are not protected by vegetation." The revegetation process, as described in Appendix A, Habitat Maintenance and Monitoring Plan of the IS/Proposed MND, would be used in conjunction with the placement of geo-cell webs to provide additional support for erosion control. This comment is part of the administrative record and will be considered during project approval but does not raise issues with the adequacy of the IS/Proposed MND.

Response to Comment A-03: The purpose of the project is to allay conditions that contribute to erosion in Guadalupe Channel. Fully eliminating erosion would require a comprehensive engineering approach that is beyond the scale of the project as defined in the Project Description and is not analyzed in the IS/Proposed MND. The geo-cell webs are expected to remain buried for the lifetime of the project, meaning that wildlife entanglement due to exposure of the geo-cell web is not expected. However, the City will continue to coordinate with CDFW regarding erosion control materials during the permitting process.

Response to Comment A-04: As discussed in **Section 4.4, Biological Resources** of the IS/Proposed MND, stray longfin smelt could occur in the Guadalupe Channel project area during construction. **Mitigation Measure BIO-1** would require a qualified biologist to use nets and other measures to passively exclude fish from the construction area at low tide prior to beginning work in the channel. This is an industry standard procedure that is used to prevent the possibility of injuring or killing longfin smelt. For the purposes of CEQA, **Mitigation Measure BIO-1** would effectively exclude any fish, including longfin smelt, from the construction area, avoiding impacts to the species. The City will coordinate with the CDFW regarding the need for an Incidental Take Permit for the longfin smelt. This comment is part of the administrative record and will be considered during project approval but does not raise issues with the adequacy of the IS/Proposed MND.