

Draft Initial Study / Proposed Mitigated Negative Declaration

for the

Sandra Hayne Storm Drain Replacement & Creek Daylighting Project

Prepared for:

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Date:

August 2020



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1.0 INTRODUCTION AND PURPOSE

This Initial Study of environmental impacts is being prepared to conform to the requirements of the California Environmental Quality Act (CEQA), the CEQA Guidelines (California Code of Regulations 15000 et. seq.), and the regulations and policies of the Town of Hillsborough (Town). This Initial Study evaluates the potential environmental impacts which might reasonably be anticipated to result from the Town's proposed storm drain replacement and creek daylighting project (Proposed Project).

The Town is the Lead Agency under CEQA and has prepared this Initial Study to address any impacts of implementing the Proposed Project. The purpose of the Proposed Project is to: 1) replace a culvert that is creating downstream erosion, and 2) restore stream habitat downstream of the culvert. This would be accomplished by "daylighting" a portion of the stream that is currently conveyed through the existing culvert and implementing geomorphic channel stabilization design strategies.

2.0 PROJECT INFORMATION

2.1 Project Title

**Sandra Hayne Storm Drain Replacement
& Creek Daylighting Project**

2.2 Lead Agency

**Town of Hillsborough
1320 La Honda Road
Hillsborough, California 94010**

2.3 Contact Person and Phone Number

**Daniel Gonzales
Deputy Director of Public Works
DGonzales@hillsborough.net
(650) 375-7588**

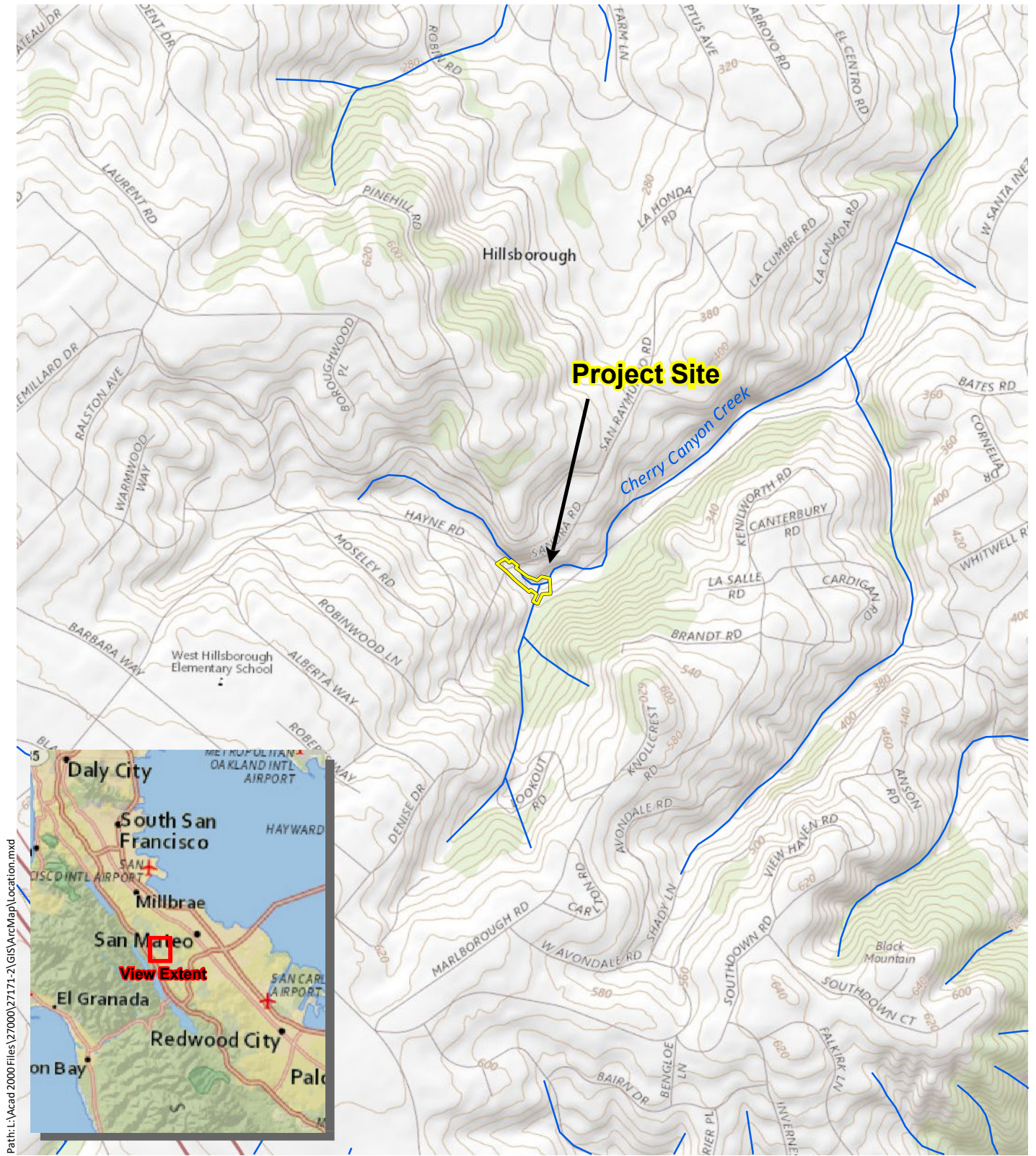
2.4 Project Location

The Project Site is located in the Town of Hillsborough, San Mateo County, California at Assessor's Parcel Numbers (APNs) 030-272-010 and 030-273-010. Work would be completed on private properties at 85 Sandra Road, 1465 San Raymundo, and a private parcel on Hayne Road with no site address. Work would follow Cherry Creek and the surrounding creek bank near the intersection of Sandra Road and Hayne Road (see Figures 1 and 2).

2.5 Surrounding Land Uses and Setting

The Proposed Site is on private property, within a stormwater easement controlled by the City of Hillsborough. The dominant land use near the Project Site is residential, with single-family, residential development to the north, west, and east of the Project Site. To the south, the site is directly bordered by a stretch of oak woodland with intermittent streams. See Figure 3 for photographs of the project site and Figure 4 for photographs of surrounding lands.

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Sources: USGS Base, WRA | Prepared By: njander, 10/8/2019

Figure 1. Project Site Regional Location Map

Sandra Hayne Storm Drain Replacement
and Creek Daylighting Project
Hillsborough, San Mateo County

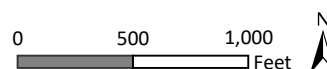
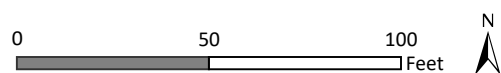




Figure 2. Aerial Photo of Project Site

Sandra Hayne Project
San Mateo County, California





View 1. View of Project Site vegetation as seen from Hayne Road.



View 2. View of the southern portion of the Project Site as seen from the bed of Cherry Creek.



View 3. View of the Project Site as seen from the bed of Cherry Creek near the intersection of Sandra Road and Hayne Road.



View 4. View of an existing culvert on the northern side of the Project Site.

Figure 3. Views of the Project Site

Sandra-Hayne Storm Drain Replacement and Creek Daylighting Project
Town of Hillsborough, San Mateo County, CA



View 1. View of Hayne Road looking south from its intersection with Sandra Road.



View 2. View of a nearby creek segment to the west of the Project Site.



View 3. View of the residential streetscape of Hayne Road, looking east from the intersection of Sandra Road and Hayne Road.



View 4. View of downstream segment of Cherry Creek southeast of the Project Site.

Figure 4. Views of Adjacent Land Uses

Sandra-Hayne Storm Drain Replacement and Creek Daylighting Project
Town of Hillsborough, San Mateo County, CA

2.6 General Plan Designation and Zoning District

Town of Hillsborough General Plan Designation: Residential

Town of Hillsborough Zoning Designation: Residence District (RD)

3.0 PROJECT DESCRIPTION

3.1 Project Description

Background

The Town of Hillsborough plans to replace storm drains that convey Cherry Creek, as well as a storm drain that carries flow from an unnamed tributary under Hayne Road and connects to lower Cherry Creek. As part of these improvements, the Town also wishes to daylight a portion of lower Cherry Creek, which would reduce erosion currently occurring along this section of the creek.

Cherry Creek is an intermittent headwater stream in the San Francisco Bay watershed (Figure 1), with significant stormwater flows resulting from rain events occurring from October to April. Baseflows typically recede in the spring and the creek tends to stop flowing in the summer, though some isolated pools may remain year-round. An unnamed tributary enters Cherry Creek via a storm drain under Hayne Road, increasing flows by roughly 50%. The creek supports a variety of aquatic, amphibious, terrestrial and avian species, and the riparian corridor provides shade and cover year-round. The watershed appears to be completely built-out with single-family residences on primarily 1/2 acre partially-forested lots. Storm drain replacement would occur on Sandra and Hayne Roads in Hillsborough (Figure 2).

The existing storm drain system that collects stormwater from the Project Site is made of corrugated metal pipe (CMP) and reinforced concrete pipe (RCP) that have reached the end of their lifespan, becoming rusted and less efficient over time. Furthermore, based on the conservative modeling results, the existing storm drains would not be capable of handling a 100-year storm event, which could result in flooding across Sandra Road, as the capacity of the existing storm drain pipes cannot accommodate that type of flow. The Town of Hillsborough, therefore, proposes to replace the outdated system with larger capacity pipes made of upgraded materials with the objective of increasing flood control and conveyance.

In designing the Proposed Project, the Town also wishes to benefit biological resources and reduce the erosion that is currently occurring downstream of the storm drain under Sandra Road, which has potential to threaten Hayne Road as well as the utilities buried within it. With that in mind, the Proposed Project includes Cherry Creek daylighting activities as well. These activities would restore a portion of the creek to its more natural state, creating native fish habitat, reducing flow velocity of the creek to avoid further erosion, and avoiding increased risk of flooding to the adjacent properties at 85 Sandra Road and 1270 Hayne Road.

Project Elements

Storm Drain Replacement

The storm drain replacement portion of the Proposed Project would involve removing the existing 36-inch CMP and RCP that runs parallel to Hayne Road and abandoning a portion of 36-inch RCP in place in the Cherry Creek storm drain system. The Proposed Project also includes the demolition of a storm drain inlet and removal of the two associated 24-inch RCP tributary twin storm drains that run along the southeastern edge of the Project Site and transport storm water across Hayne Road. An 18-inch storm drain whose inlet is located on Sandra Road and a 24-inch storm drain whose inlet is on the eastern side of Hayne Road would also be removed. See Appendix A for a site plan depiction of these removals.

The existing storm drain headwall (retaining wall placed at the inlet or outlet of a storm drain to improve inward and outward water flow and provide anchoring support) and trash rack (metal grate that prevents larger debris from entering the system and impacting capacity) are located in Upper Cherry Creek, just north of Sandra Road and east of Hayne Road. These structures would be replaced with a new headwall and trash rack, which would be placed within the same footprint as the existing structures.

The Proposed Project would employ open trench construction methods with excavation shoring. The Cherry Creek Storm Drain improvements would require replacing the 36-inch CMP with 170 lineal feet (LF) of 48" and 57" high-density polyethylene pipe (HDPE), and installing three new storm drain junction structures. The storm drain from the Sandra Road inlet will be replaced with 25 LF of 18" HDPE. The storm drain on Hayne Road that collects water from Robinwood Lane will be replaced with 35 LF of 24" HDPE. The tributary twin storm drain junction structure on the south side of Hayne Road will be replaced with 75 LF of 42" HDPE tributary storm drain. The proposed improvements are shown in a site plan in Appendix A.

Creek Daylighting and Restoration

Cherry Creek, upstream and downstream of the project site, is a steep channel with areas of exposed bedrock, described as a step-pool channel. The creek has been observed to have significant baseflow in the spring and into the early summer, which supports aquatic and riparian habitat. The purpose of the Proposed Project, in addition to replacing the failing storm drains, would be to restore a section of Cherry Creek to a more natural state.

Step-pool channels like Cherry Creek are characterized by an accumulation of large rock features, like cobbles and boulders, which are organized by the high velocity of downhill creek flow into discrete rib-like formations that span the channel. The ribs form an alternating series of steps and pools that decrease in elevation as the creek flows downhill. Step-pool structures are characteristic of relatively steep, coarse-grained, and confined mountain streams; they provide both grade control during high flows and instream habitat during low flows.

The project site is very steep and narrow, with roughly 25% slope and a width of 25 to 50 feet, confined by roughly 20-foot-tall side slopes with a 2:1 (H:V) gradient. Natural streams with this gradient are typically underlain by bedrock, as the shear stresses are capable of transporting any

large rocks present in the bed. Over time, this type of stream erodes all material in the bed until it hits bedrock. This is the case for the upper reach of Cherry Creek, upstream of Sandra Road. The channel bed is comprised mostly of boulders and bedrock. It stands to reason that the project site would require the use of large boulders to be stable just like those that are present upstream and downstream.

Incorporating step-pools in channel restoration is similar to using traditional grade-control structures to stabilize eroding channels. In this case, natural materials like boulders and logs would be used in place of concrete “hardscaping” features for channel designs. Step-pools also provide habitat to aquatic, amphibious, and riparian species by creating surface water environments and supporting the development of streamside vegetation, which can provide shade, cover and forage. Step-pool creek restoration design is an accepted practice and has, in fact, become a preferred method for this type of bank stabilization.

The finished design of the channel would be a relatively chaotic, natural-looking assemblage of rock features, ranging in size from coarse sand to large boulders. The rocks would be assembled to form a rough step-pool sequence, such as the rib-like formation described previously, and would be planted with willows and other vegetation to encourage habitat creation and riparian vegetation establishment. Plans for the creek daylighting activities described above can be viewed in Appendix A.

Construction

Cut and Fill

For the storm drain replacement portion of the Proposed Project, construction activities would require a maximum 23-foot depth of excavation, creating approximately 1,400 cubic yards (CY) of material. Approximately 700 CY would be used on-site and 700 CY would be exported and transported to an appropriate off-site location. For the creek daylighting portion of the work, activities would require excavation of approximately 890 CY of soil inside the limit of grade, which would also be transported to an appropriate off-site location. This area would be backfilled with 648 CY of coarse alluvium imported from a quarry. A two-foot layer of clay soil, totaling 222 CY, would also be imported and installed in order to promote surface flow and prevent sub-surface erosion and settling. Existing sandbags currently stabilizing the west bank of Cherry Creek would be removed and replaced with rock toe, native soil, and branch layering to create a bioengineered soil lift.

Creek Dewatering

Temporary creek bypassing would be required to construct the Project. Similar approaches would be adopted for both Cherry Creek and the unnamed tributary. A gravity-fed system would be used to divert the creek and tributary flow using sandbags, plastic visquine, and pipes. A watertight sandbag cofferdam would be placed across the full channel width in the upstream portion of the channel to divert water for roughly 400 feet of the Cherry Creek work area and 100 feet of the tributary work areas, respectively. Sandbag cofferdams would be roughly 20 feet wide, 3 feet high, and 3 feet long with actual dimensions to be confirmed prior to construction. An appropriately sized flexible drain pipe would be used to convey Cherry Creek and tributary flows;

this pipe is anticipated to be 4-inch diameter, with the actual diameter to be confirmed prior to construction. Cherry Creek and tributary flows are expected to be very low during the summer in-water work window, when precipitation events are extremely rare and summer base flows are less than 0.5 cfs. The drain pipe may be aligned on the ground surface or inserted through existing storm drains. All cofferdams, and dewatering measures if necessary, would be removed at the end of the Project, and the creek would be restored to its original conditions at the cofferdam locations.

Restoration

Upon completion, the Project would create 60 LF (0.05 acre) of intermittent stream and 0.06 acre of riparian coast live oak woodland, including the planting of over 200 riparian trees. An additional 0.02 acre of intermittent stream and 0.04 acre of riparian coast live oak woodland would also be restored.

Schedule

Construction activities would take place between April 15th to October 15th, with much of the work occurring between June and September. Completing work during the dry season, as planned, avoids impacts to biological resources in and around the creek. The Town has a Noise Ordinance, Code Section 8.32, which limits noise levels from all sources within the Town. In addition, the Town's construction contract limits construction work hours to Monday through Friday from 8:00 a.m. to 5:00 p.m. Construction activities are not permitted on Saturday, Sunday, or weekday holidays, unless the Contractor requests otherwise from the Town in writing at least 48 hours in advance and the Town approves in its sole discretion.

Equipment

Removal of the existing storm drains, capping abandoned storm drain, installing new storm drain piping, and re-grading of the creek would require the use of the following equipment: an excavator, a dump truck, a steel wheel roller, and a vibrating plate compactor or rammer for compacting the edges of the new and old asphalt.

Staging

Three construction equipment staging areas are planned for the Proposed Project. One is at the Town's Marlborough Water Tank Site, located across from 1650 Marlborough Road. This site has two staging areas available which measure approximately 1,400 square feet (SF). The second is at the Tournament Water Tank Site, across from 1116 Tournament Drive, with an available staging area of 240 SF. The third is at the Caltrans "Park & Ride" lot, located at the intersection of Golf Course Drive and Skyline Boulevard, which has an available staging area of 7,800 SF. Figure 5 depicts these locations and their relation to the Project Site.

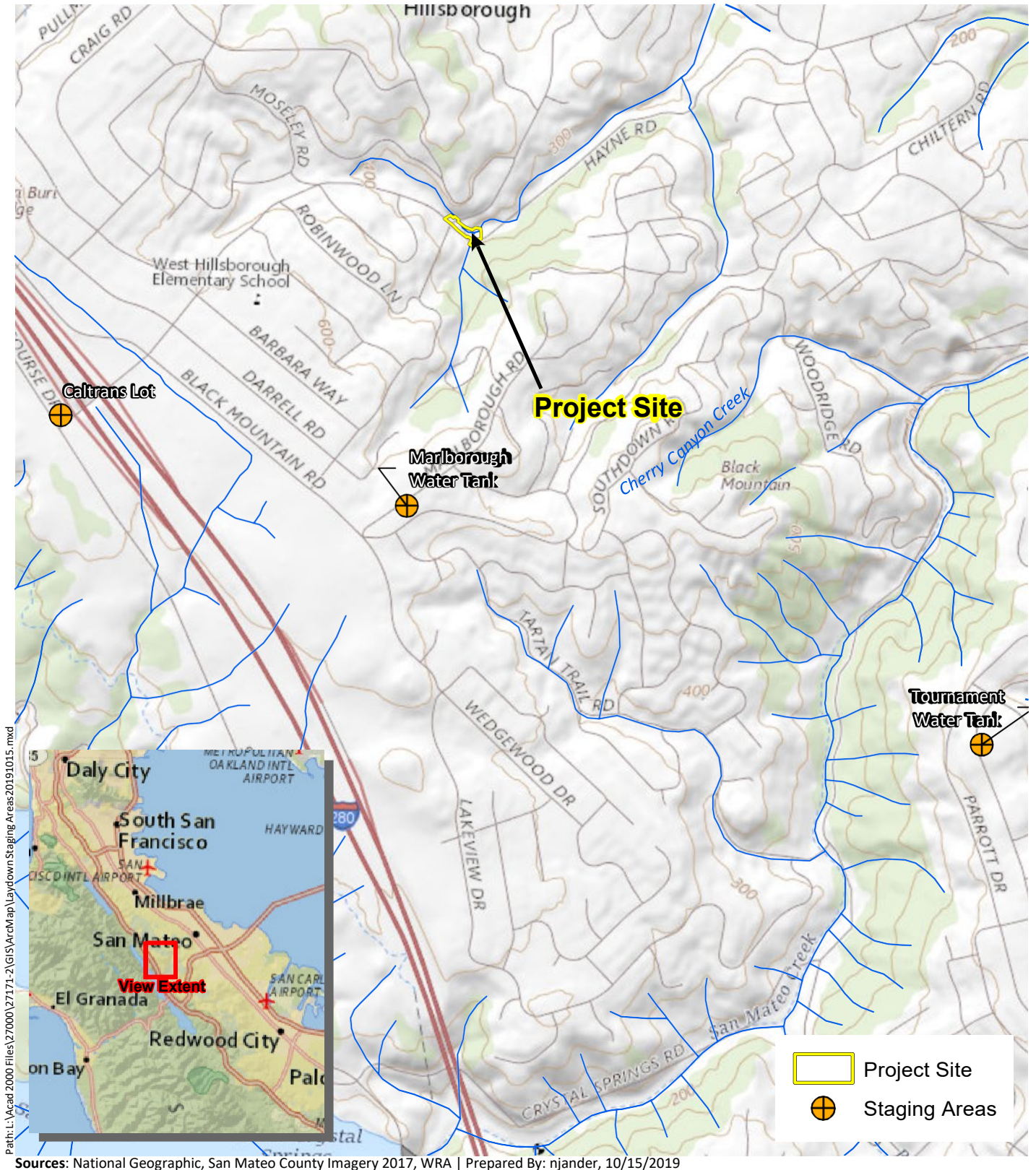
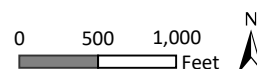


Figure 5. Laydown Staging Areas

Sandra Hayne Storm Drain Replacement
and Creek Daylighting Project
Hillsborough, San Mateo County



Tree Removal

Chapter 14.04 of the City's Tree Ordinance regulates the protection of certain trees on public and private properties within City limits in order to retain as many trees as possible. There are currently 18 trees meeting the City's size requirements inside the footprint of Proposed Project activities, and all 18 of these trees could potentially be removed. Species of trees to be removed include seven coast live oaks, three California laurels, one fruitless mulberry, two Mexican fan palms, and four trees of unknown species or condition.¹ The two palm trees are located within the utility yard and would be removed and replanted after construction. A tree removal plan is depicted in Appendix A, and Appendix E (Tree Survey Report) provides more detail regarding the tree inventory and assessment.

An approved tree removal permit from the City's Building Department would be required for all 18 trees. In order to avoid and minimize damage to existing trees that are not proposed for direct impact by Project activities, the following Best Management Practices (BMPs) should be implemented during construction:

Tree Protection BMPs

- All construction activity (grading, filling, paving, landscaping etc.) shall respect the root protection zone (RPZ) around all trees within the vicinity of the Project Site that are to be preserved. The RPZ shall be a distance of 1.0 times the dripline radius measured from the trunk of the tree. Exception to this standard could be considered on a case-by-case basis, provided that it is demonstrated that an encroachment into the RPZ will not affect the root system or the health of the tree, and is authorized by an ISA-Certified Arborist or comparable specialist.
- Temporary protective fencing shall be installed around the dripline of existing trees prior to commencement of any construction activity conducted within 25 feet of the tree canopy. The fence shall be clearly marked to prevent inadvertent encroachment by heavy machinery.
- Drainage will not be allowed to pond around the base of any tree.
- An ISA-Certified Arborist or tree specialist shall be retained to perform any necessary pruning of trees during construction activity.
- Should any utility lines encroach within the tree protection zone, a single, shared utility conduit shall be used where possible to avoid negative impact to trees.
- Roots exposed, as a result of construction activities shall be covered with wet burlap to avoid desiccation, and shall be buried as soon as practicable.

¹ Four trees within the Project Site were surveyed in a separate survey conducted by EKI Environment & Water, Inc. (EKI). Trees surveyed by EKI do not have associated species, dripline, height, condition, health, or structure data.

- Construction materials or heavy equipment shall not be stored within the root protection zone of preserved trees.
- Only an ISA-Certified Arborist or comparable specialist will make specific recommendations as to where any existing trees can safely tolerate some level of fill within the drip line.
- Trenching within RPZ shall be done under the field supervision of an ISA-Certified Arborist and shall be hand dug as much as possible in addition to using auger or drill.
- Construction materials shall be properly stored away from existing trees to avoid spillage or damage to trees.

3.2 Project –Related Approvals, Agreements, and Permits

The information contained in this Initial Study will be used by the Town as it considers whether or not to approve the proposed project. If the project is approved, the Initial Study would be used by the Town and responsible and trustee agencies in conjunction with various approvals and permits. These actions include, but may not be limited to, the following permits by the agencies indicated:

Army Corps of Engineers

404 (Nationwide) permit

California Regional Water Quality Control Board

401 Water Quality Certificate

California Department of Fish and Wildlife

Streambed Alteration Agreement

Town of Hillsborough

Tree Removal Permit

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4.0 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is potentially significant unless mitigation is incorporated, as indicated by the checklist on the following pages.

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

Determination

On the basis of this initial evaluation:

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

Daniel J. Gonzales

Digitally signed by Daniel J. Gonzales
DN: C=US, E=dgonzales@hillsborough.net,
O="Town of Hillsborough", OU=Public Works,
CN=Daniel J. Gonzales
Date: 2020.08.18 16:14:30-0700

Signature

08-18-2020

Date

Name and Title: Daniel Gonzales, Deputy Director, Dept. of Public Works

Initial Study Checklist

This section describes the existing environmental conditions in and near the project site and evaluates environmental impacts associated with the proposed project. The environmental checklist, as recommended in the CEQA Guidelines (Appendix G), was used to identify environmental impacts that could occur if the proposed project is implemented. The right-hand column in the checklist lists the source(s) for the answer to each question. The cited sources are identified at the end of this section.

Each of the environmental categories was fully evaluated, and one of the following four determinations was made for each checklist question:

“No Impact” means that no impact to the resource would occur as a result of implementing the project.

“Less than Significant Impact” means that implementation of the project would not result in a substantial and/or adverse change to the resource, and no mitigation measures are required.

“Less than Significant with Mitigation Incorporated” means that the incorporation of one or more mitigation measures is necessary to reduce the impact from potentially significant to less than significant.

“Potentially Significant Impact” means that there is either substantial evidence that a project-related effect may be significant, or, due to a lack of existing information, could have the potential to be significant.

4.1 Aesthetics

AESTHETICS — Would the project:	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>	<i>Source</i>
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1,2
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 type="checkbox"/>	<input checked="" type="checkbox"/>	1,2,4,6
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? 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"/>	1,2,3,7
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1

Environmental Setting

Aesthetic resources are often referred to as visual resources, because these resources are often plainly visible to the general public. *Scenic vistas* are typically defined as a broad panoramic overview of a landscape, often from an elevated perspective that can be viewed by the public. Highways or roadways can be listed or eligible for listing by the California Department of Transportation (Caltrans), or by local jurisdictions and counties, as state or county *Scenic Highways*. *Visual character or quality* is the arrangement of all visual features (i.e., anything visible, such as trees, hills, houses, sky, water, towers, roads, power lines, etc.) in a view. The arrangement of visible features on the ground produce the visual character of a site and its surroundings.²

The Town of Hillsborough's General Plan does not contain an aesthetic or visual resources chapter or reference any designated scenic view or vista; however, the Town's abundant visual appeal is nonetheless referenced by way of the General Plan Open Space and Conservation Element's focus on protecting, preserving, and restoring natural features and resources, including

² Paul Curfman, WRA Environmental Planner, personal communication, September 17, 2019.

creek corridors, trees, slopes, and woodlands. Specific language referencing these priorities can be found in Goal OSC-3, Policies OSC-3.1 through OSC-3.13.

The Town is a unique community in that its founders made the decision to preserve the low density character of the community by adopting regulations that banned sidewalks and grid pattern streets, protected trees, etc. Hillsborough has been designed mainly for local residents and, therefore, has few direct connections to the external regional roadway system and no State or County designated scenic highways. The closest scenic corridor is that of the State-designated Junipero Serra Boulevard, approximately 0.75 miles west of the Project Site.

Surrounding land uses comprising the visual character of the Project Site include single-family residences, heavy tree cover, and relatively narrow, two-lane, curvilinear roadways. Cherry Creek itself is largely screened by tree cover and by the hilly nature of the topography. Lower Cherry Creek, where the creek daylighting would occur, is in a steep ravine with vegetated banks. Existing sources of glare are mainly limited to automobile windshields and reflective building materials associated with residential uses.

Discussion of Impacts

- a, b) **No Impact.** Due to tree cover, variable topography, and the lack of any designated public space, no scenic vistas exist in or near the Project Site. Furthermore, there is no State or locally designated scenic highway, road, or corridor within the vicinity of the Project Site. The Proposed Project would therefore not result in impacts to a scenic vista or to scenic resources within a State scenic highway.
- c) **Less than Significant Impact.** There is the potential for temporary impacts to the existing visual quality of the surrounding area during construction. The only potential public view of the Project Site comes from the adjacent roadways: Sandra Road and Hayne Road. Views of the creek itself would be screened by heavy vegetation and a steep creek bank (for lower Cherry Creek), but the presence of construction equipment could result in temporary visual impacts. Construction of the Project also requires the removal of 18 trees within the Project limits, varying in size from 25 to 40 feet in height. However, removal of trees is regulated by the Town and a tree removal permit would be required prior to these activities. Further, the permanent development of the site would still be consistent with the heavily wooded existing conditions of the site. Most of the trees to be removed are in the lower reach of Cherry Creek, for the creek daylighting and restoration component of the Project, which would overall benefit the scenic quality of the Project Site and surrounding areas. These minor construction impacts and overall negligible operational impacts to scenic quality would be less than significant.
- d) **No Impact.** Construction of the proposed project would not create a significant source of light or glare during daytime hours, to which construction activities would be limited. The long-term operation of the project would not result in the addition of new sources of light or glare. Upon completion of construction, the light and glare conditions at the Project Site would be identical to existing conditions. Therefore there is no impact related to new sources of light or glare adversely affecting day or nighttime views in the area.

4.2 Agriculture and Forestry Resources

AGRICULTURE AND FORESTRY RESOURCES — Would the project:	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>	<i>Source</i>
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1,5
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1,2,3
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1,2,3,4
d) 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"/>	1,2,3,4
e) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1,2,3,4

Environmental Setting

The Project Site is located in the Town of Hillsborough, which is generally built-out and residential. The Project Site is zoned Residential District, according to the Town of Hillsborough 2005 General Plan, and has a land use designation of Residential per the Town of Hillsborough Code of Ordinances. According to the California Department of Conservation's Farmland Mapping and Monitoring Program, the Project Site does not contain any prime farmland, unique farmland, or farmland of state or local importance. The Project Site and its surroundings are all classified as built-up/urban land or "other" land, neither of which have suitable characteristics for commercial

agriculture³. According to the most recently available Williamson Act map for San Mateo County, the Project Site is not under a Williamson Act Contract, nor are any nearby lands⁴.

Discussion of Impacts

- a-e) **No Impact.** The Project Site is designated and zoned for residential use by the Town of Hillsborough's General Plan and Zoning Ordinance. It is not zoned for agriculture, open space, forestland, timberland, or any other use relevant to agriculture and forestry. The Town of Hillsborough, including the Project Site, is located in a relatively built-out, urban area; and there is no agricultural land in or near the Project Site. While the site is located in a creek bed with riparian vegetation, the wooded area is relatively small and does not constitute a forest. The Project Site is not designated by the state as prime farmland, unique farmland, or farmland of state or local importance and is not under a Williamson Act contract. As there is no farmland or forestland within the Project Site, no such land would be converted from its current use or have a use introduced that would conflict with its zoning; and there would be no impacts to agriculture or forestry.

³ California Department of Conservation, *San Mateo County Important Farmland*, February 2016.

⁴ California Department of Conservation, *San Mateo County Williamson Act FY 2006/2007, 2012*.

4.3 Air Quality

AIR QUALITY — Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>	<i>Source</i>
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,8
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"/>	1,8
c) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,8
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"/>	1,8

Environmental Setting

The Project Site is located in a residential area in the Town of Hillsborough in northern San Mateo County, which is part of the nine-county San Francisco Bay Air Basin (SFBAB). This part of the San Francisco Peninsula experiences persistent ocean breezes off the Pacific Ocean, circulating and pushing out many air pollutants, but Hillsborough is somewhat sheltered by higher terrain and, during stagnant air conditions, has degraded air quality along with the rest of the Bay Area.⁵ The main nearby air pollutant sources include outdoor lawn equipment and vehicles traveling along residential and city streets in the Project's vicinity.

The Bay Area Air Quality Management District (BAAQMD) has jurisdiction over air quality in the SFBAB in accordance with the Clean Air Act (CAA) and under the delegation of the California Air Resource Board (CARB) and the U.S. Environmental Protection Agency (US EPA). BAAQMD regulates air quality through its permit authority over most types of stationary emission sources and through its planning and review activities. BAAQMD monitors air quality at numerous sites within the nine-county District, although not within Hillsborough. The closest air monitoring stations are in San Francisco to the north and Redwood City to the south.

⁵ Town of Hillsborough General Plan, Public Safety Element. 2005.

Air quality standards and thresholds are generally developed and regulated with the health of sensitive receptors in mind. Sensitive receptors are especially vulnerable to air pollution's health effects and include children, seniors, and people with pre-existing health conditions. Such individuals can often be found at residences, hospitals, and schools. The Project Site is located in a residential area where there may be children, elderly people, and people with pre-existing health conditions. Additionally, West Hillsborough Elementary and Preschool is located approximately 0.3 miles west of the Project Site.

Regulatory Setting

Under the authority of the Federal CAA, the US EPA establishes National Ambient Air Quality Standards (NAAQS), or maximum allowable concentrations, for six common air pollutants (also known as "criteria pollutants", because they are the only air pollutants for which specific air quality criteria have been set). The six criteria air pollutants under the CAA are ozone (O₃), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), carbon monoxide (CO), lead (Pb), and particulate matter of 10 and 2.5 microns in size (PM₁₀ and PM_{2.5}).

For PM there are separate NAAQS for these different size ranges of particles. The class of pollutants designated as PM_{2.5}, particles with diameters smaller than 2.5 microns and referred to as "fine particulate matter", includes essentially all particles created by burning of gaseous or liquid fuel, smoking/vaping, and atmospheric reactions between gases. The class of pollutants designated as PM₁₀, particles with diameters smaller than 10 microns and referred to as "respirable particulate matter", includes PM_{2.5} as well as windblown and mechanically generated dust, including re-suspended road dust and dust from earthmoving activities.

The California CAA establishes maximum allowable concentrations, known as California Ambient Air Quality Standards (CAAQS), for the above-mentioned six criteria pollutants, as well as four additional pollutants (visibility-reducing particles, sulfates (SO₄), hydrogen sulfide (H₂S), and vinyl chloride). The CAAQS are overseen by CARB, which is part of the California EPA (Cal/EPA) and has jurisdiction over local air districts.

Local and regional ambient air quality is assessed relative to both these national standards (NAAQS) and state standards (CAAQS), which are required to be protective of human health (allowing an adequate margin of safety) and public welfare. When air pollution levels within an air basin are below the thresholds set by the NAAQS and CAAQS, the region is said to be in attainment. Similarly, nonattainment status refers to a situation in which air basin pollution levels do not meet these standards.

The Bay Area exceeded the ozone NAAQS and CAAQS on three days in 2018, the NO₂ NAAQS on one day, the PM₁₀ CAAQS on six days, and the PM_{2.5} NAAQS on 18 days.⁶ The SFBAB is formally designated as having attained all of the federal and state standards except ozone and particulate matter. The SFBAB is currently in non-attainment of the O₃ and PM_{2.5} NAAQS and CAAQS, as well as the PM₁₀ CAAQS.⁷

BAAQMD is directly responsible for reducing emissions from stationary (area and point), mobile, and indirect sources, and it has responded to this requirement by preparing a series of Air Quality Management Plans (AQMPs), with the most recent issued in April 2017 (the 2017 Clean Air Plan). AQMPs are prepared with the cooperation of the Metropolitan Transportation Commission (MTC) and the Association of Bay Area Governments (ABAG). The 2017 Clean Air Plan strives to improve Bay Area air quality and protect public health by defining a control strategy to reduce emissions and ambient concentrations of air pollutants, reducing exposure to air pollutants the pose the greatest health risk, and reducing greenhouse gas emissions to protect the climate.

Projects that are consistent with the population forecasts identified by ABAG are considered consistent with the 2017 Clean Air Plan's transportation and growth-related goals and policies, since ABAG's projections form the basis of the land use and transportation control strategies of the Plan. The Plan also assumes that general development projects will include feasible strategies (i.e., mitigation measures) to reduce emissions generated during construction and operation and bases estimates of future emissions taking into account State policies and regulations already adopted or likely to be adopted and implemented over the next 10-15 years.

Discussion of Impacts

- a) ***Less Than Significant with Mitigation Incorporated.*** Construction activities would result in short-term increases in emissions from the use of heavy equipment that generates dust, exhaust, and tire-wear emissions; soil disturbance; materials used in construction; and construction traffic. Project construction would produce fugitive dust (PM₁₀ and PM_{2.5}) during ground disturbance and would generate carbon monoxide, ozone precursors, and other emissions from vehicle and equipment operation. BAAQMD released a Clean Air Plan for the Bay Area in 2017, which would be the applicable air quality plan for the Proposed Project. Best management practices (BMPs) recommended by BAAQMD in the 2017 CEQA Air Quality Guidelines and identified below in Mitigation Measure AIR-1 would be implemented during construction to minimize fugitive dust. The storm drain

⁶ BAAQMD (Bay Area Air Quality Management District). 2019. *Bay Area Air Pollution Summary – 2018*. Available from <http://www.baaqmd.gov/about-air-quality/air-quality-summaries>. Accessed September, 2019.

⁷ BAAQMD (Bay Area Air Quality Management District). 2019. *Air Quality Standards and Attainment Status*. Available from <http://www.baaqmd.gov/about-air-quality/research-and-data/air-quality-standards-and-attainment-status>. Accessed September, 2019.

replacement and creek daylighting activities would mainly occur within a previously developed footprint. Construction emissions would be temporary, lasting approximately 16 to 24 weeks, and would not have long-term effects on air quality in the Bay Area. Operational emissions would be consistent with current baseline conditions. Because of the small area of disturbance, temporary nature of the emissions, and implementation of construction measures, impacts on air quality would be less than significant and would comply with the Bay Area 2017 Clean Air Plan.

Mitigation Measure AIR-1:

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, 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 public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
 - All vehicle speeds on unpaved roads shall be limited to 15 mph.
 - All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
 - Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations).
 - All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications, and all equipment will be checked by a certified visible emissions evaluator.
 - A publicly visible sign with the telephone number and person to contact at the lead agency regarding any dust complaints shall be posted in or near the project site. The contact person shall respond to complaints and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.
- b) ***Less Than Significant with Mitigation Incorporated.*** As discussed under item a), the Project would result in minor construction-related emissions. Operational emissions would be consistent with current baseline levels. It would not result in a cumulatively considerable net increase of any criteria pollutant. The Project would cause short-term air quality impacts as a result of construction activities; however, it would not result in long-term or cumulatively considerable increases in air quality pollutant emissions for which the Bay Area is currently in non-attainment (ozone and particulate matter). Implementation of BAAQMD BMPs in Mitigation Measure AIR-1 would ensure that the temporary increase in air pollutant emissions associated with construction activities would result in less than significant contributions to cumulative pollutant levels in the region.
- c) ***Less Than Significant with Mitigation Incorporated.*** The primary sensitive receptors in the vicinity are residents, which may include children, elderly people, or people with respiratory illnesses, and West Hillsborough Elementary and Preschool students.

Sensitive receptors located in close proximity to several locations adjacent to the construction area could be exposed to temporary air pollutants from construction activities, such as fugitive dust, ozone precursors, and carbon monoxide. The duration of construction activities would be limited. Basic construction measures recommended by BAAQMD in Mitigation Measure AIR-1 would be implemented during construction to minimize air pollutants. New construction equipment has been subject to increasingly stringent emissions requirements at the Federal level (e.g., 40 CFR 89 and 1039); designated “Tier 1”, “Tier 2”, “Tier 3”, etc.; and older construction equipment is subject to potential retrofit requirements required by the State of California (13 CCR 2449, 13 CCR 2450-2466, and 17 CCR 93116). As a result, sensitive receptors in the vicinity of the project would not be exposed to substantial pollutant concentrations, and impacts would be less than significant.

- d) ***Less Than Significant Impact.*** Construction activities would involve the use of gasoline or diesel-powered equipment that emits exhaust fumes. These activities would take place intermittently throughout the workday, and the associated odors are expected to dissipate within the immediate vicinity of the work area. Persons near the construction work area may find these odors objectionable. However, the proposed project would not include uses that have been identified by BAAQMD as potential sources of objectionable odors, such as restaurants, manufacturing plants, landfills, and agricultural and industrial operations. The infrequency of the emissions, rapid dissipation of the exhaust and other odors into the air, and short-term nature of the construction activities would result in less than significant odor impacts.

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4.4 Biological Resources

BIOLOGICAL RESOURCES — Would the project:	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>	<i>Source</i>
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 U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,9
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,7,9
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,7,9
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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,9
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,3,7,9
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1

Environmental Setting

Biological Communities

Non-sensitive biological communities observed in the Project Site include developed/landscaped land and coast live oak woodland.⁸ Additionally, two sensitive biological communities were observed in the Project Site: Cherry Creek, classified as intermittent stream, and riparian coast live oak woodland. Descriptions for each biological community are contained in the following sections. Biological communities within the Project Site are also summarized in Table 1 below and shown in Figure 6.

Table 1. Summary of Biological Communities within the Project Site

Community Type	Area (acres)
Non-sensitive biological communities	
Coast Live Oak Woodland	0.17
Developed/Landscaped	0.24
Sensitive biological community	
Intermittent Stream (Cherry Creek)	0.04
Riparian Coast Live Oak Woodland	0.17
Total Project Site Size	0.62

Non-Sensitive Biological Communities

Coast Live Oak Woodland

Coast live oak woodland is known from the outer and inner Coast Ranges, Transverse Ranges, and southern coast from northern Mendocino County south to San Diego County. This vegetation community is typically located on terraces, canyon bottoms, slopes, and flats underlain by deep, well-drained sandy or loam substrates with high organic content.⁹

⁸ Senate Bill 1334, titled *Oak Woodland Conservation: Environmental Quality*, details protections and specific mitigation measures for all oak woodlands in unincorporated areas of California, whether or not they are biologically sensitive. Within the Town of Hillsborough, however, the Town's Tree Ordinance regulates tree protection on public and private land. The Tree Ordinance protects all tree species of a certain size, but does not provide special protections to oak woodlands.

⁹ California Native Plant Society. 2017. *Inventory of Rare and Endangered Plants of California*. California Native Plant Society, Sacramento, California. <http://www.rareplants.cnps.org>. Accessed August 2017.



Project Area (0.62 ac.)

Sensitive Communities

Intermittent Stream (0.04 ac. | 155 ft.)

Riparian Coast Live Oak Woodland (0.17 ac.)

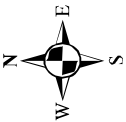
Non-Sensitive Communities

Coast Live Oak Woodland (0.17 ac.)

Developed (0.24 ac.)

Figure X. Update to Biological Communities Located within the Project Area

Sandra Hayne Storm Drain Replacement
and Creek Daylighting Project
Hillsborough, San Mateo County, California



This map may contain data from publicly available sources including, but not limited to, parcel boundaries. These data sources may be inaccurate. They are intended for reference purposes only and do not represent legal boundaries or absolute locations.



ENVIRONMENTAL CONSULTANTS

Map Prepared Date: 11/13/2019
Map Prepared By: njander
Base Source: USDA NAIP Imagery 2016
Data Source(s): WRA

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Within the Project Site, coast live oak woodland occupies approximately 0.17 acre and is mixed with native, non-native ornamental, and invasive species. The dominant species is coast live oak (*Quercus agrifolia*). Blue gum Eucalyptus (*Eucalyptus globulus*), arroyo willow (*Salix lasiolepis*), and holly leaf cherry (*Prunus ilicifolia*) are also present at low cover within the coast live oak woodland. The shrub stratum is largely composed of French broom (*Genista monspessulana*), toyon (*Heteromeles arbutifolia*), and black elderberry (*Sambucus nigra*). An array of perennial herbs and grasses line the perimeter of Cherry creek, predominantly bigleaf periwinkle (*Vinca major*), broadleaf helleborine (*Epipactis helleborine*), poison hemlock (*Conium maculatum*), and colonial bentgrass (*Agrostis capillaris*).

Developed/Landscaped Lands

Developed/Landscaped urban land occupies approximately 0.24 acre in the Project Site. The developed/landscaped land includes a parcel of land owned by the Town of Hillsborough, at the intersection of Sandra Road and Hayne Road. This parcel of land houses two ground-unit Pacific Gas and Electric (PG&E) utility boxes and is largely un-vegetated with exception of date palm (*Phoenix canariensis*), paradise apple (*Malus pumila*), and bird of paradise (*Strelitzia reginae*). Yew pine (*Podocarpus macrophyllus*) has been planted along the southeastern perimeter of the Project Site where Hayne Road meets the coast live oak woodland, likely to create a partition for residences adjacent to Hayne Road.

Sensitive Biological Communities/Sensitive Natural Communities

Intermittent Stream (Cherry Creek)

A formal wetland and non-wetland waters delineation was also conducted within the Project Site during the July 31, 2017 site visit. Characteristics observed determined that Cherry Creek occupies approximately 0.04 acre of habitat within the Project Site and is located along the inner depressions of the coast live oak woodland and riparian coast live oak woodland habitats. Within the Project Site, Cherry Creek is culverted for approximately 250 linear feet (of the total 320 linear feet within the Project Site) as it flows southeast underneath Sandra Road to the lower reaches of the Project Site. A defined bed-and-bank along with several OHWM characteristics, including a natural line impressed on the bank, destruction of terrestrial vegetation, and the presence of litter and debris, were observed within Cherry Creek and is thus potentially jurisdictional under Section 401 and 404 of the CWA and Section 1600 of CFGC. Detailed results of this delineation are included in the Sandra-Hayne Culvert Replacement Delineation Letter.¹⁰

Flows in Cherry Creek run for the entire wet season and receive discharged water from upper reaches of Cherry Creek as the creek receives stormwater discharge from the surrounding

¹⁰ WRA, Inc. 2017. Sandra-Hayne Culvert Replacement Delineation Letter. September 1. Prepared for the Town of Hillsborough. 15 pages.

neighborhood. Cherry Creek has a weir approximately 7 feet northeast of southern portion of the Project Site. The weir is approximately 4 feet high, and is a horizontal barrier to alter the flow of Cherry Creek. Within the Project Site, Cherry Creek has a moderate gradient and imprecise channel. Cherry Creek contains a channel bed of assorted sediments dominated by fill, small cobbles, and mud.

Riparian coast live oak woodland

Riparian coast live oak woodland is a sensitive natural community that occurs as a subset of the larger coast live oak woodland habitat in the Project Site. Within the Project Site approximately 0.17 acre of riparian coast live oak woodland habitat occurs as a sensitive natural community in areas directly adjacent to the non-culverted portions of Cherry Creek. Riparian coast live oak woodland is not classified as sensitive biological community existing in the *Preliminary Descriptions of the Terrestrial Natural Communities of California* or *A Manual of California Vegetation, Second Edition*. However, this community does contain elements of the communities described as central coast live oak riparian forest¹¹ and coast live oak woodland (*Quercus agrifolia* Woodland Alliance; Rarity ranking G5, S4; CNPS 2018). The overstory is generally dense and the understory is generally open. Within the Project Site the overstory is composed primarily of coast live oak, though other tree species are present at low cover, including arroyo willow and holly leaf cherry. The understory shrub species in the Project Site include poison oak (*Toxicodendron diversilobum*), California blackberry (*Rubus ursinus*), and toyon (*Heteromeles arbutifolia*). The understory herbaceous species include colonial bent grass (*Agrostis capillaris*) tall flat sedge (*Cyperus eragrostis*), poison hemlock (*Conium maculatum*), and pink honeysuckle (*Lonicera hispidula*). French broom (*Genista monspessulana*) was also present within the understory on southeast hillside of this community.

Special-Status Species

Special-Status Plant Species

Eighty-one special-status plant species have been documented from within the vicinity of the Project Site. Appendix C-1 to the Biological Resources Assessment (Appendix C to this IS/MND) summarizes the potential of these species to occur in the Project Site. Based on the resources reviewed and the types and condition of habitats observed at the site, it was determined that no special-status plant species have a moderate or high potential to occur in the Project Site. No special-status plant species were observed in the Project Site during the site visit. All plant species documented within the vicinity of the Project Site were determined to have no potential

¹¹ Holland, R.F. 1986. *Preliminary Descriptions of the Terrestrial Natural Communities of California*.

or are unlikely to occur because they typically require habitat elements absent from the Project Site including but not limited to:

- serpentine soils;
- sandy beaches or alkaline flats,
- old growth forest;
- salt marsh;
- wetland, playa, and marsh

Special-status plant species that have been documented within a five-mile radius of the Project Site are depicted in Figure 3 of the Biological Resources Assessment (Appendix C).

Special-Status Wildlife Species

Seventy-five special-status wildlife species have been documented or have the potential to occur within the vicinity of the Project Site. Appendix C-1 to the Biological Resources Assessment (Appendix C to this IS/MND) summarizes the potential of these species to occur in the Project Site. Special-status wildlife species documented from within 5 miles of the Project Site in the CNDDDB are shown in Figure 4 of the Biological Resources Assessment (Appendix C). One special-status wildlife species was observed within the Project Site, while two others were determined to have a moderate potential to occur. No species were determined to have a high potential to occur. In addition, native, birds within the Project Site are protected by the MTBA and CFGC.

Of the 75 special-status wildlife species listed in Appendix C-2 of the Biological Resources Assessment, it was determined that most species have no potential or are unlikely to occur. Those species determined to be unlikely or have no potential to occur typically require habitat elements which are absent from the Project Site and its surrounds including:

- grasslands;
- serpentine soils capable of supporting host plants;
- sandy beaches or alkaline flats,
- old growth forest;
- salt marsh;
- ponds, lakes or other large waterbodies;
- rock outcrops, abandoned buildings, mine shafts or similar structures;
- anadromous connection to San Francisco Bay;
- habitat connectivity to extant populations, or
- the Project Site is outside of the species known distribution.

Those species observed, or with moderate potential to occur within the Project Site are discussed in more detail below.

Species Considered Present in the Project Site

San Francisco dusky-footed woodrat (*Neotoma fuscipes annectens*), CDFW SSC. This subspecies of the dusky-footed woodrat occurs in the Coast Ranges between San Francisco Bay and the

Salinas River.¹² Occupied habitats are variable and include forest, woodland, riparian areas, and chaparral. Woodrats feed on woody plants, but will also consume fungi, grasses, flowers and acorns. Foraging occurs on the ground and in bushes and trees. This species constructs robust stick houses/structures in areas with moderate cover and a well-developed understory containing woody debris. Breeding takes place from December to September. Individuals are active year-round, and generally nocturnal.

During the site visit two nests constructed by this species were observed in the surrounding woodlands. In addition, one nest was also observed within the Project Site near the downstream boundary. Because nests constructed by this species have been observed within the Project Site, the species is considered present.

Species with Moderate Potential to Occur in the Project Site

Nuttall's woodpecker (*Picoides nuttallii*), USFWS BCC. Nuttall's Woodpecker, common in much of its range, is a year-round resident throughout most of California west of the Sierra Nevada. Typical habitat is oak or mixed woodland, and riparian areas.¹³ Nesting occurs in tree cavities, principally those of oaks and larger riparian trees. Nuttall's woodpecker also occurs in older residential settings and orchards where trees provide suitable foraging and nesting habitat. This species forages on a variety of arboreal invertebrates.

While not observed during the site assessment, this species has been observed in the local area.¹⁴ Additionally, the limited number of oak trees within the Project Site may provide cavities or other suitable substrate for nesting by the species. Riparian areas with a mix of oaks and other broad-leaved trees are typical foraging habitat for this species. Therefore, while suitable nesting substrate is limited to a few oak trees, foraging substrates are present, and the species has been

¹² Matocq, M. 2003. *Dusky-footed Woodrats (Neotoma fuscipes) at Hastings: A Research Tradition. Hastings Natural History Reservation.* <http://www.hastingsreserve.org/Woodrats/DFwoodrats.html>. Accessed August 2017.

¹³ Lowther, Peter E. 2000. *Nuttall's Woodpecker (Picoides nuttallii)*, *The Birds of North America Online* (A. Poole, Ed.). Ithaca: Cornell Lab of Ornithology; Retrieved from the Birds of North America Online: <http://bna.birds.cornell.edu/bna/species/555>

¹⁴ Sullivan, B.L., C.L. Wood, M.J. Iliff, R.E. Bonney, D. Fink, and S. Kelling. 2017. *eBird: a citizen-based bird observation network in the biological sciences. Biological Conservation* 142: 2282-2292. <https://ebird.org/home>. Accessed August 2017.

observed in the local area; therefore this species has a moderate potential to nest in the Project Site.

Oak titmouse (*Baeolophus inornatus*), USFWS BCC. This relatively common species is year-round resident throughout much of California including most of the coastal slope, the Central Valley and the western Sierra Nevada foothills. In addition, the species may also occur in residential settings where landscaping provides foraging and nesting habitat. Its primary habitat is woodland dominated by oaks.

Local populations have adapted to woodlands of pines and/or junipers in some areas. The oak titmouse nests in tree cavities, usually natural cavities or those excavated by woodpeckers, though they may partially excavate their own.¹⁵ Seeds and arboreal invertebrates make up the birds' diet.

While not observed during the site assessment, this species has been observed in the local area.¹⁶ Additionally, the limited number of oak trees within the Project Site may provide cavities or other suitable substrate for nesting by the species. Riparian areas with a mix of oaks are typical foraging habitat for this species. Therefore, while suitable nesting substrate is limited to a few oak trees, foraging substrates are present, and the species has been observed in the local area; therefore this species has a moderate potential to nest in the Project Site.

Listed Species Not Likely to Occur in the Project Site

Federal or state listed species that have been documented within the vicinity of the Project Site but which are unlikely to occur at the site include: California red-legged frog (CRLF: *Rana draytonii*), San Francisco garter snake (SFGS: *Thamnophis sirtalis tetrataenia*) and steelhead (*Oncorhynchus mykiss irideus*, Central California Coast Distinct Population Segment [DPS]). Based on the results of the database and literature review and on habitat conditions observed at the site, it was determined that these species have no potential or are unlikely to occur within the Project Site. These species are discussed in more detail below.

California Red-legged Frog (*Rana draytonii*), Federal Threatened Species, CDFW SSC. The CRLF is dependent on suitable aquatic, estivation, and upland habitat. During periods of wet weather, starting with the first rainfall in late fall, red-legged frogs disperse away from their estivation sites to seek suitable breeding habitat. Aquatic and breeding habitat is characterized by dense, shrubby, riparian vegetation and deep, still or slow-moving water. Breeding occurs between late

¹⁵ Cicero, Carla, Peter Pyle and Michael A. Patten. 2017. Oak Titmouse (*Baeolophus inornatus*), *The Birds of North America* (P.G. Rodewald, Ed.). Ithaca: Cornell Lab of Ornithology. <https://birdsna.org/Species-Account/bna/species/oaktit/introduction>. Accessed August 2017.

¹⁶ Sullivan, B.L., C.L. Wood, M.J. Iliff, R.E. Bonney, D. Fink, and S. Kelling. 2017. eBird: a citizen-based bird observation network in the biological sciences. *Biological Conservation* 142: 2282-2292. <https://ebird.org/home>. Accessed August 2017.

November and late April. California red-legged frogs estivate (period of inactivity) during the dry months in small mammal burrows, moist leaf litter, incised stream channels, and large cracks in the bottom of dried ponds.

The lack of suitable breeding habitat as well as a lack of connectivity to known populations make it unlikely that this species will occur within the Project Site. CRLF require ponds or pooled water with relatively little or no flow for breeding. Stream habitat like Cherry Creek is not suitable to support breeding by this species. Uplands surrounding the creek have also been developed into residential neighborhoods and as such, also do not support seasonal ponding required for breeding by CRLF. Additionally, the nearest occurrences of this species occur along the west side of Highway 280 within the Crystal Springs Reservoir system. Cherry Creek originates on the east side of Highway 280 and as such does not provide a habitat corridor for CRLF to migrate from population sources into the Project Site. Given the lack of a breeding habitat, and lack of a migration corridor to provide access by CRLF from nearby populations, the species is unlikely to occur within the Project Site.

San Francisco Garter Snake (*Thamnophis sirtalis tetrataenia*), Federal Endangered, State Endangered, CDFW Fully Protected Species. Historically, San Francisco garter snakes (SFGS) occurred in scattered wetland areas on the San Francisco Peninsula from approximately the San Francisco County line south along the eastern and western bases of the Santa Cruz Mountains, at least to the Upper Crystal Springs Reservoir, and along the coast south to Año Nuevo Point, San Mateo County, and Waddell Creek, Santa Cruz County.

The preferred habitat of the San Francisco garter snake is a densely vegetated pond near an open hillside where they can sun themselves, feed, and find cover in rodent burrows; however, considerably less ideal habitats can be successfully occupied.¹⁷ Temporary ponds and other seasonal freshwater bodies are also used. Emergent and bankside vegetation such as cattails (*Typha* spp.), bulrushes (*Scirpus* spp.) and spike rushes (*Juncus* spp. and *Eleocharis* spp.) apparently are preferred and used for cover. The area between stream and pond habitats and grasslands or bank sides is used for basking, while nearby dense vegetation or water often provide escape cover. Snakes also use floating algal or rush mats, if available.

¹⁷ U.S. Fish and Wildlife Service. 2006. San Francisco Garter Snake (*Thamnophis sirtalis tetrataenia*) 5-Year Review: Summary and Evaluation. Sacramento Fish and Wildlife Office. September.

There are two significant components to SFGS habitat: 1) ponds that support California red-legged frog (*Rana draytonii*, CRLF), American bullfrog (*Lithobates catesbeiana*), or the Sierran treefrog (*Pseudacris sierra*) and 2) surrounding upland that supports Botta's pocket gopher (*Thomomys bottae*) and the California meadow vole (*Microtus californicus*). Ranid frogs are an obligate component of the SFGS's diet.

Specific information on the home range of SFGS documents this species to travel much shorter distances than other garter snake species, many of which travel over several kilometers between winter and summer sites. Studies at Año Nuevo State Reserve found the mean distance of female hibernacula to the Visitor Center Pond was 459 feet, with a maximum distance of 637 feet. Distances of greater than 637 feet have been reported, including an unconfirmed distance of approximately 1000 feet.^{18,19} However, more recent studies at Año Nuevo State Reserve continue to confirm SFGS are regularly within 300 and 650 feet of foraging (pond) habitats and upland sites. Dispersal is rarely greater than this distance although not impossible if dispersal occurs in pursuit of prey, and during periods of heavy rain or shortly after, SFGS may make long-distance movements of up to 1.25 miles along drainages within the dense riparian cover; however, SFGS have not been documented to travel over open terrain.²⁰

The Project Site and immediate surrounds lack pond habitat, suitable forage and basking sites to support this species. The Project Site contains intermittent stream which does not provide the large ponded waterbodies capable of providing escape from predators or supporting large numbers of frogs, the primary prey source for this species. Additionally, the closed riparian canopy eliminates suitable basking habitat, preventing the species from being able to thermoregulate its body temperature. Therefore, the lack of pond habitat and prey sources, combined with insufficient basking habitat leave no potential for the species to occupy the Project Site.

¹⁸ McGinnis, S.M. 1987. *The distribution and feeding habitat requirements of the San Francisco garter snake (Thamnophis sirtalis tetrataenia)*. Final report for the California Department of Fish and Game. Sacramento, California. 13 pp.

¹⁹ Larsen, S.S. 1994. *Life history aspects of the San Francisco garter snake at the Millbrae habitat site*. Master's Thesis. California State University, Hayward, California. 105 pp.

²⁰ McGinnis, S. M. 2001. *Past and Present Habitats for the San Francisco Garter Snake and California Red-Legged Frog on the Original Cascade Ranch Property, With Additional Comments on Potential Movement Pathways and Suggestions for Critical Habitat Enhancement Measures*. Unpublished. January.

Steelhead Central California Coast DPS (*Oncorhynchus mykiss irideus*), Federal Threatened. The Central California Coast (CCC) Distinct Population Segment of Steelhead includes all naturally spawned populations of steelhead (and their progeny) in California streams from the Russian River to Aptos Creek, and the drainages of San Francisco and San Pablo Bays eastward to the Napa River (inclusive), excluding the Sacramento-San Joaquin River Basin. Two artificial propagation programs are considered to be part of the CCC Distinct Population Segment: the Kingfisher Flat Hatchery/Scott Creek, and the Don Clausen Fish Hatchery.²¹

The life history patterns for steelhead are both highly variable and flexible.²² While similar to most Pacific Salmonids (*Oncorhynchus* sp.) in their anadromous life history, steelhead exhibit a greater variation in timing for each component of their life history. Steelhead typically migrate to marine waters after spending two years in freshwater, though they may stay up to seven. They then reside in marine waters for two or three years prior to returning to their natal stream to spawn as four or five year-olds. In addition to the anadromous life history, a resident freshwater life history known as rainbow trout exists for the species. Both of these life history types often exist in the same populations, and genetically these types are indistinct from each other with resident rainbow trout capable of producing steelhead and Steelhead progeny sometimes becoming resident rainbow trout.

Critical Habitat

Essential Fish Habitat

The watershed which encompasses the Project Site is designated as EFH for both Chinook and Coho Salmon. However, because the creek is effectively cut off from any migration by downstream barriers (drained channel, modified concrete channel, and extreme lengths of culverting), the Project has no potential to impact migratory fish or other special-status fish species, nor does the Project have potential to impact EFH productivity as the Project Site cannot be accessed by migratory or EFH species.

²¹ National Marine Fisheries Service. 2007. Essential Fish Habitat. <http://www.habitat.noaa.gov/protection/efh/index.html>. Accessed February 2018.

²² Moyle, PB 2002. *Inland Fishes of California*. University of California Press, Berkeley, California. Natural Resources Conservation Service. 2010. *Field Indicators of Hydric Soils in the United States, version 7.0*. In cooperation with the National Technical Committee for Hydric Soils, Fort Worth, TX.

Wildlife Corridors

The Project Site contains a stream and riparian vegetation throughout much of its length, and likely serves as a wildlife corridor on a local scale. While the upstream and downstream sections of Cherry Creek can be considered “core habitat areas,” no migratory fishes (i.e. salmonids) are present to require seasonal movement through the waters of the Project Site. Additionally, the culvert connecting the upper and lower reaches of the creek is currently impassible by salmonids as the approximately 20 percent slope, over approximately 200 feet, far exceeds the swimming abilities of salmonids.²³ However, other local species (e.g. deer, raccoons, or birds) may travel through the canyon and Project Site when moving to and from local foraging, bedding or watering areas. As such the Project Site likely serves a small scale habitat corridor for species moving through the local area.

The Project may potentially disrupt some local wildlife movement during construction, but will not result in any long term impacts to corridor function. Noise and movement during construction activities can cause disturbances sufficient to dissuade wildlife from using areas. However, in this case, most of the common species (e.g. raccoons, skunks, etc.) are nocturnal and commonly move through woodlands, along roadways, or through lightly urbanized landscapes.²⁴ If disturbed, such species would either move through adjacent woodland habitats, or may move through the Project Site at night when construction will not be occurring, thereby limiting the potential interaction between construction activities and wildlife. Additionally, the Project is not likely to affect the long term suitability or functionality of the corridor because no fences, retaining walls, or other such obstructions will be constructed that may block access by wildlife. Therefore, the Project may temporarily disrupt some movement by common wildlife species during active construction, but once completed, the functionality of the corridor will be unchanged.

Regulatory Setting

Sensitive Biological Communities

Sensitive biological communities include habitats that fulfill special functions or have special values, such as wetlands, streams, or riparian habitat. These habitats are protected under federal regulations such as the Clean Water Act (CWA); state regulations such as the Porter-Cologne Act, the California Fish and Game Code (CFGF), and the California Environmental Quality Act

²³ Bates, K. 2002. *Culvert Criteria for Fish Passage*. State of California, Resources Agency Department of Fish and Game.

²⁴ Feldhamer, G.A. 2007. *Mammalogy: adaptation, diversity, ecology*. JHU Press. Google Earth. 2018. Aerial Imagery 1939-2017. Accessed February 2018.

(CEQA); or local ordinances and policies such as city or county Tree Ordinances, Special Habitat Management Areas, General Plans, and Habitat Conservation Plans.

Waters of the United States

The U.S. Army Corps of Engineers (Corps) regulates “Waters of the United States” under Section 404 of the CWA. Waters of the U.S. are defined in the Code of Federal Regulations (CFR) as waters susceptible to use in commerce, including interstate waters and wetlands, all other waters (intrastate waterbodies, including wetlands), and their tributaries (33 CFR 328.3). Potential wetland areas, according to the three criteria used to delineate wetlands as defined in the *Corps of Engineers Wetlands Delineation Manual* (Corps Manual; Environmental Laboratory 1987), *A Field Guide to Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the United States* (“OHWM Guide;” Corps 2005), and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region Supplement* (Arid West Supplement; Corps 2008), are identified by the presence of (1) hydrophytic vegetation, (2) hydric soils, and (3) wetland hydrology. Areas that are inundated at a sufficient depth and for a sufficient duration to exclude growth of hydrophytic vegetation are subject to Section 404 jurisdiction as “other waters” and are often characterized by an ordinary high water mark (OHWM). Other waters, for example, generally include lakes, rivers, and streams. The placement of fill material into Waters of the U.S generally requires an individual or nationwide permit from the Corps under Section 404 of the CWA.

Waters of the State

The term “Waters of the State” is defined by the Porter-Cologne Act as “any surface water or groundwater, including saline waters, within the boundaries of the state.” The Regional Water Quality Control Board (RWQCB) protects all waters in its regulatory scope and has special responsibility for wetlands, riparian areas, and headwaters. These waterbodies have high resource value, are vulnerable to filling, and are not systematically protected by other programs. RWQCB jurisdiction includes “isolated” wetlands and waters that may not be regulated by the Corps under Section 404. Waters of the State are regulated by the RWQCB under the State Water Quality Certification Program which regulates discharges of fill and dredged material under Section 401 of the CWA and the Porter-Cologne Water Quality Control Act. Projects that require a Corps permit, or fall under other federal jurisdiction, and have the potential to impact Waters of the State, are required to comply with the terms of the Water Quality Certification determination. If a proposed project does not require a federal permit, but does involve dredge or fill activities that may result in a discharge to Waters of the State, the RWQCB has the option to regulate the dredge and fill activities under its state authority in the form of Waste Discharge Requirements.

Streams, Lakes, and Riparian Habitat

Streams and lakes, as habitat for fish and wildlife species, are subject to jurisdiction by the California Department of Fish and Wildlife (CDFW) under Sections 1600-1616 of CFGC. Alterations to or work within or adjacent to streambeds or lakes generally require a 1602 Lake and Streambed Alteration Agreement. The term “stream”, which includes creeks and rivers, is defined in the California Code of Regulations (CCR) as “a body of water that flows at least

periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life [including] watercourses having a surface or subsurface flow that supports or has supported riparian vegetation” (14 CCR 1.72). In addition, the term “stream” can include ephemeral streams, dry washes, watercourses with subsurface flows, canals, aqueducts, irrigation ditches, and other means of water conveyance if they support aquatic life, riparian vegetation, or stream-dependent terrestrial wildlife.²⁵ The term “riparian” is defined as “on, or pertaining to, the banks of a stream.” Riparian vegetation is defined as “vegetation which occurs in and/or adjacent to a stream and is dependent on, and occurs because of, the stream itself”.²⁶ Removal of riparian vegetation also requires a Section 1602 Lake and Streambed Alteration Agreement from the CDFW.

Other Sensitive Biological Communities

Other sensitive biological communities not discussed above include habitats that fulfill special functions or have special values. Natural communities considered sensitive are those identified in local or regional plans, policies, regulations, or by the CDFW. The CDFW ranks sensitive communities as “threatened” or “very threatened” and keeps records of their occurrences in its California Natural Diversity Database. Sensitive plant communities are also identified by the CDFW.²⁷ Vegetation alliances in the CNDDDB are ranked 1 through 5 based on NatureServe’s (2017) methodology, with those alliances ranked globally (G) or statewide (S) as 1 through 3 considered sensitive. Impacts to sensitive natural communities identified in local or regional plans, policies, or regulations or those identified by the CDFW or the USFWS must be considered and evaluated under the CEQA. Specific habitats may also be identified as sensitive in city or county general plans or ordinances.

Special-Status Species

Special-status species include those plants and wildlife species that have been formally listed, are proposed as endangered or threatened, or are candidates for such listing under the federal Endangered Species Act (FESA) or California Endangered Species Act (CESA). These Acts afford protection to both listed and proposed species. In addition, CDFW Species of Special Concern (SSC), and National Marine Fisheries Service (NMFS) Species of Concern (SOC), are

²⁵ California Department of Fish and Wildlife. 2018. BIOS - California Essential Habitat Connectivity Project: A Strategy for Conserving a Connected California. Prepared for California Department of Transportation, California Department of Fish and Game, and Federal Highways Administration.

²⁶ CDFG. 1994. A Field Guide to Lake and Streambed Alteration Agreements, Sections 1600-1607. Environmental Service Division, California Department of Fish and Game, Sacramento, CA.

²⁷ California Department of Fish and Wildlife. Biogeographic Data Branch. 2017. California Natural Diversity Database (CNDDDB). Sacramento Field Office. <https://www.wildlife.ca.gov/Data/CNDDDB/Maps-and-Data>. Accessed August 2017.

species that face extirpation if current population and habitat trends continue. U.S. Fish and Wildlife Service (USFWS) Birds of Conservation Concern, which have the potential to nest within the area, sensitive species included in USFWS Recovery Plans, and CDFW special-status invertebrates, are also considered special-status species. Although CDFW SSC generally have no special legal status, they are given special consideration under the CEQA.

In addition to regulations for special-status species, most birds in the United States, including non-status species, are protected by the Migratory Bird Treaty Act of 1918 (MBTA). Under this legislation, destroying active nests, eggs, and young is illegal. Bat species designated as “High Priority” by the Western Bat Working Group (WBWG) qualify for legal protection under Section 15380(d) of CEQA Guidelines. Species designated “High Priority” are defined as “imperiled or are at high risk of imperilment based on available information on distribution, status, ecology and known threats”.

Plant species listed in the California Native Plant Society (CNPS) Rare and Endangered Plant Inventory (Inventory) with California Rare Plant Ranks (Rank) of 1 and 2 are also considered special-status plant species and must be considered under CEQA. Rank 3 and Rank 4 species are afforded reduced to no protection under CEQA, but are included in this analysis for completeness. A description of the CNPS Ranks and associated threat codes are provided below in Table 2.

Table 2. Description of CNPS ranks and threat codes

California Rare Plant Ranks (formerly known as CNPS Lists)	
Rank 1A	Presumed extirpated in California and either rare or extinct elsewhere
Rank 1B	Rare, threatened, or endangered in California and elsewhere
Rank 2A	Presumed extirpated in California, but more common elsewhere
Rank 2B	Rare, threatened, or endangered in California, but more common elsewhere
Rank 3	Plants about which more information is needed - A review list
Rank 4	Plants of limited distribution - A watch list
Threat Ranks	
0.1	Seriously threatened in California
0.2	Moderately threatened in California
0.3	Not very threatened in California

Critical Habitat

Critical habitat is a term defined in the FESA as a specific geographic area that contains features essential for the conservation of a threatened or endangered species and that may require special management and protection. The FESA requires federal agencies to consult with the USFWS to conserve listed species on their lands and to ensure that any activities or projects that they fund, authorize, or carry out will not jeopardize the survival of a threatened or endangered species. In consultation for those species with critical habitat, federal agencies must also ensure that their activities or projects do not adversely modify critical habitat to the point that it will no longer aid in

the species' recovery. In many cases, this level of protection is similar to that already provided to species by the FESA "jeopardy standard". However, areas that are currently unoccupied by the species but which are needed for the species' recovery are protected by the prohibition against adverse modification of critical habitat.

Essential Fish Habitat

Essential Fish Habitat (EFH) is regulated through the NMFS, a division of the National Oceanic and Atmospheric Administration (NOAA). Protection of EFH is mandated through changes implemented in 1996 to the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) to protect the loss of habitat necessary to maintain sustainable fisheries in the United States. The Magnuson-Stevens Act defines EFH as "those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity" [16 USC 1802(10)]. The NMFS further defines essential fish habitat as areas that "contain habitat essential to the long-term survival and health of our nation's fisheries". Essential Fish Habitat can include the water column, certain bottom types such as sandy or rocky bottoms, vegetation such as eelgrass or kelp, or structurally complex coral or oyster reefs. Under regulatory guidelines issued by the NMFS, any federal agency that authorizes, funds, or undertakes action that may affect EFH is required to consult with the NMFS (50 CFR 600.920).

Wildlife Corridors

Wildlife movement between suitable habitat areas typically occurs via wildlife movement corridors. The primary function of wildlife corridors is to connect two larger habitat blocks, also referred to as core habitat areas.²⁸ Core habitat areas are important for wildlife that may travel between different types of habitat in order to complete various stages of their lifecycle. Wildlife corridors must be considered under CEQA.

Local Policies, Ordinances, and Regulations

Senate Bill 1334 (2004), the Oak Woodland Conservation Act, requires counties acting as CEQA lead agencies to require specified mitigation if they determine that a project within their jurisdiction will have a significant effect to oak woodlands. The Project Site is within an incorporated area of the Town of Hillsborough and, therefore, the Town's Tree Ordinance is the appropriate regulation to reference for guidance on tree protections and provisions.

Per the Town of Hillsborough's Building/Planning Office (pers. comm. Tom Anderson) and their Tree Removal Guidelines (June 2011), trees are defined as "any woody plant which has a trunk with a diameter of twelve inches or greater, measured at four feet, six inches above natural grade".

²⁸ Beier, P. 1992. A checklist for evaluating impacts to wildlife movement corridors. *Wildlife Society Bulletin*. 20: 434-440.

The Tree Removal Guidelines dictate removal of any plant species meeting this criteria or larger requires a tree removal permit from the Town of Hillsborough.

Discussion of Impacts

- a) ***Less than Significant with Mitigation Incorporated.*** There are no candidate, sensitive, or special-status plant species with potential to occur in the Project Site. Of the 75 special-status wildlife species documented from within the vicinity of the Project Site, three were determined to be present or have moderate potential to occur: San Francisco dusky-footed woodrat, Nuttall's woodpecker, and oak titmouse. Noise, ground disturbance, and other construction activities could cause a temporary disturbance to these species, as well as potentially adversely affect other species protected by the MBTA or CDFW. Potential impacts to these species or their habitat could occur during the removal of vegetation or from disturbance associated with construction. Removal of vegetation could result in the direct take of nests containing eggs or young, including those of Nuttall's woodpecker or oak titmouse. Implementation of Mitigation Measures BIO-1 and BIO-2 would reduce construction phase impacts to less than significant. The operational phase of the project would leave the area very similar to its current baseline condition in the upper reach of Cherry Creek and would daylight Cherry Creek in the lower stretch of the Project Site. Daylighting the creek and restoring its ecosystem function would overall benefit habitat in the immediate vicinity of the Project long term. Impacts from the Project to state or federal special status species would therefore be less than significant with mitigation incorporated.

Mitigation Measure BIO-1:

The implementation of the following mitigation measures, will reduce the potential for impacts to San Francisco dusky-footed woodrat:

- Prior to working in forested or scrub habitats, a pre-construction survey shall be conducted to identify any existing San Francisco dusky-footed woodrat nests that may be impacted (i.e., those within the Project Site, or within 10 feet of planned activities).
- Woodrat nests that cannot be avoided by at least 10 feet shall be dismantled by hand under the supervision of a biologist. If young are encountered during the dismantling process, the material shall be placed back on the nest and the nest shall then remain unmolested for three weeks in order to give the female enough time to move the young, or for the young to mature and leave the nest. After that time, the nest dismantling process may begin again. Nest material shall be scattered to suitable adjacent areas (riparian, woodland, scrub) that will not be impacted.

With the implementation of the aforementioned mitigation measures, the Project is expected to have a less than significant impact on San Francisco dusky-footed woodrat.

Mitigation Measure BIO-2:

The implementation of the following mitigation measures will help to reduce the potential for impacts to special-status birds and native nesting birds:

- To the extent feasible, ground disturbance and vegetation removal shall be initiated between September 1 and January 30, outside of the nesting season for most bird species expected to occur at the site.
- If working outside the nesting season is not possible, and ground disturbance or vegetation removal must occur between February 1 and August 31, a pre-construction nesting bird survey shall be performed within 14 days prior to the onset of such activities to determine the presence and location of nesting bird species.
- If active nests are present, temporary exclusion buffers shall be placed around the nest site and work shall not occur within these areas. The appropriate buffer distance is dependent on the species, the surrounding vegetation, and the topography and shall be determined by a qualified biologist as appropriate to the species and situation in order to prevent nest abandonment or direct mortality during Project activities.

With the implementation of the aforementioned mitigation measures, the Project is expected to have a less than significant impact on nesting birds.

b,c) ***Less than Significant with Mitigation Incorporated.*** The Proposed Project has the potential to permanently impact up to 0.01 acre of intermittent stream (Cherry Creek) and permanently impact 0.03 acre of riparian coast live oak woodland. The replacement tributary culvert would result in permanent impacts to 5 LF (<0.001 acre) of the intermittent stream and the creek daylighting would result in the permanent conversion of 60 LF (0.01 acre) of culverted intermittent stream to daylighted intermittent stream. Creation of restored step-pool channels would result in the permanent conversion of 86 LF (0.03 acre) of riparian coast live oak woodland to intermittent stream. Additionally, the Proposed Project has the potential to temporarily impact 0.06 acre of intermittent stream (Cherry Creek) and 0.04 acre of riparian coast live oak woodland. Replacement of existing storm drains and restoration activities would result in temporary impacts to 113 LF (0.03 acre) of intermittent stream below top-of-bank. Culvert replacement would result in temporary impacts to 256 LF (0.03 acre) of culverted intermittent stream, Restoration efforts would temporarily impact 65 LF (0.04 acre) of riparian coast live oak woodland, including the removal of three trees. Disturbance may include but is not limited to temporary dewatering, culvert replacement, creek daylighting, removal of riparian vegetation, placement of fill or excavation within Cherry Creek, or the alteration of the bed-and-bank.

The Project would create 60 LF (0.05 acre) of intermittent stream and 0.06 acre of riparian coast live oak woodland, including the planting of over 200 riparian trees. An additional 0.02 acre of intermittent stream and 0.04 acre of riparian coast live oak woodland would also be restored. The Project includes on-site creation and enhancement at a ratio of >12:1 for intermittent stream permanent impact length and 2:1 for permanent impacts to riparian coast live oak woodland, as well as replacing removed trees at a ratio of >200:1.

Streams and lakes are subject to jurisdiction by Corps under Section 404 of the CWA, the RWQCB under Section 401 of the CWA, and CDFW under Sections 1600-1616 of the CFGC. Work in streams generally requires Section 404 and 401 permits from Corps and RWQCB. Alterations to or work within or adjacent to streambeds or lakes generally require

a 1602 Lake and Streambed Alteration Agreement. Removal of riparian vegetation also requires a Section 1602 Lake and Streambed Alteration Agreement (LSAA) from CDFW and may require a Section 401 permit. CDFW jurisdiction typically extends to the top of bank or the outer edge of riparian vegetation, whichever is further from the stream. The permits may require mitigation for the small footprint of the project's riparian and stream impacts.

With this and implementation of Mitigation Measures BIO-3 and BIO-4 below, calling for exclusion fencing and for the applicant to be bound to appropriate regulatory permits and work windows, the Project's adverse effects on sensitive biological communities, riparian habitat, and state and federally protected wetlands would be less than significant.

Mitigation Measure BIO-3:

- To ensure that potential impacts to riparian vegetation Cherry Creek are minimized and/or avoided to the greatest extent feasible, exclusion and/or silt fencing shall be placed around all riparian vegetation that will be preserved and this fencing will remain in place for the duration of construction.
- Any work within the OHWM of Cherry Creek will require a Section 404 permit from the Corps.
- Any work within the top of bank or disturbance to riparian habitat will require a Section 401 Water Quality Certification from the Regional Water Quality Control Board and a Section 1602 Lake and Streambed Alteration Agreement from CDFW.

Mitigation Measure BIO-4:

Creek work shall take place between April 15th and October 15th. Completing work during the dry season, as planned, avoids and minimizes impacts to biological resources in and around the creek.

- d) ***Less than Significant with Mitigation Incorporated.*** The Project Site occurs in a riparian corridor along Cherry Creek, which serves as an upland corridor, but currently does not serve as an aquatic corridor because migratory fishes are absent. Given the location of the site amidst a developed urban area, and the lack of a suitable connection to any watercourses with migratory fish populations, the Project Site does not likely represent a migratory corridor for fish. Only non-special-status wildlife species such as blacktailed deer (*Odocoileus hemionus columbianus*), raccoons (*Procyon lotor*) and birds are likely to use the riparian corridor for migration. Such mammalian species typically move at night, or during dawn and dusk and can easily traverse through the periphery of the Project Site during non-construction hours without harassment. Even though the Project is unlikely to affect migratory or native fish populations and will only temporarily interfere with the movement of resident upland species, Mitigation Measures BIO-4 and BIO-5 will ensure impacts are less than significant.

Further, the Project may temporarily impede the use of native wildlife nursery sites during the construction phase by damaging bird nests and causing injury or mortality to eggs or chicks, or disturbance of nesting adults resulting in reduced clutch survival or nest

abandonment. Implementation of Mitigation Measure BIO-2 will help to reduce the potential for impacts to native wildlife nurseries to less than significant.

Mitigation Measure BIO-4:

- In order to avoid disturbance to animals during the primary migratory times (night, dawn and dusk), work shall not occur earlier than 0.5 hour after sunrise, or later than 0.5 hour before sunset.
- No fences, walls or other sheer barriers shall be constructed across the width of the Project Site which might exclude mammalian species (e.g. deer or raccoons) from entering or exiting the Project Site.
- Any trenches shall be either covered, or have escape ramps placed in them at the end of each day.
- Any food trash will be removed from the Project Site daily to avoid attracting predators to the area.

Mitigation Measure BIO-5:

A bypass cofferdam constructed of sandbags shall be installed to isolate the work area, and a qualified biologist shall capture and relocate any native fish remaining in the work area prior to a full dry down.

- e) ***Less than Significant with Mitigation Incorporated.*** Some trees observed onsite may meet the definition of “tree” as defined by the Town of Hillsborough Tree Removal Guidelines. Project activities, equipment staging, or ingress/egress routes may require the removal of trees and thus may require authorization from the Town of Hillsborough.

The Proposed Project would require up to 18 ordinance-sized trees within the Project limits to be removed. Species of the trees to be removed include seven coast live oaks, three California laurels, one fruitless mulberry, two Mexican fan palms, one arroyo willow, and four unnamed trees. The two palm trees are located within the utility yard, and they would be removed and replanted after construction. A tree removal plan in Appendix A depicts the trees to be removed. An approved tree removal permit from the City’s Building Department will be required for all 18 trees.

Further, in order to avoid and minimize damage to existing trees that are not proposed for direct impact by Project activities, the BMPs listed in the Project Description and Mitigation Measure BIO-5 would be implemented during construction. With this along with the Town’s approval of a Tree Removal Permit prior to any ground disturbance, the Project would not conflict with any local policies or ordinances and there would be a less than significant impact.

Mitigation Measure BIO-5:

- Limit removal of trees to the maximum extent feasible.
- Trees to be preserved will be identified with construction fencing or similar material to prevent damage or destruction.

- A tree removal permit shall be obtained from the Town of Hillsborough for any tree removal required.
- f) **No Impact.** No state, regional, or federal habitat conservation plans or Natural Community Conservation Plans have been adopted for the project site.

4.5 Cultural Resources

CULTURAL RESOURCES — Would the project:	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>	<i>Source</i>
a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,10
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,10
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"/>	1,10

Analysis in this section is based upon the Cultural Resources Report prepared by Pacific Legacy and contained in Appendix F. This study was prepared in compliance with Section 106 of the National Historic Preservation Act (NHPA), the National Environmental Policy Act (NEPA), and the California Environmental Quality Act (CEQA).

Environmental Setting

Background

The Project Site lies in the hills that overlook the San Francisco Peninsula watershed to the west. The San Francisco Peninsula watershed encompasses 23,000 acres of the San Francisco Peninsula in San Mateo County and surrounds San Andreas, Upper Crystal Springs, and Lower Crystal Springs Reservoirs. The watershed is largely undeveloped and public access is limited. The Project area is within the northern and eastern foothills of the Santa Cruz Mountains, east of Montara Mountain, on the west-facing hill slopes above the Crystal Springs Reservoir and Buri Ridge within the San Andreas Fault Zone. Primary ridges in the vicinity include Fifield Ridge, Sawyer Ridge, Cahill Ridge, and Sweeney Ridge. The Project area lies within the Cherry Creek Canyon watershed.²⁹

Geology and Soils

The Project Site is located in the Town of Hillsborough on the San Francisco Peninsula in the San Francisco Bay Area. The San Francisco Peninsula is located within the Coast Ranges geomorphic province at the transition between the northern and southern Coast Ranges. The province comprises a series of nearly parallel, northwest-trending mountain ranges as well as

²⁹ Schoenherr, A. 1992, *A Natural History of California*. University of California Press, Berkeley.

northwest trending valleys and fault systems. The northern Coast Ranges are mostly comprised of an assemblage of Franciscan rocks that are late Mesozoic in age. Franciscan rocks are primarily shales and sandstones with some limestone, and silica-rich cherts.

The Soil Survey for the eastern part of San Mateo County describes the soils for the area east of Highway 280 extending from San Bruno to Redwood City as “Urban land, and very shallow to very deep gently rolling to very steep, well drained soils underlain by sandstone”. The urban land consists of areas covered by driveways, roads, parking lots and structures where the soils have been graded and mixed or covered in imported fill soils. The area also has small areas of Accelerator, Fagan, Obispo, Maymen, and Los Gatos soil series. Accelerator Series soils consist of well drained loams, clay loams and gravelly clay loam. Fagan Series soils are well drained loams and sandy clay loams. Obispo Series soils are dark gray to very dark gray clays. Maymen Series soils are well drained loamy, mixed, mesic Dystric Lithic Xerochrepts. Los Gatos Series are well drained, fine loamy mixed mesic Typic Argixerolls.³⁰

Ethnography

The Project Site is located within the ethnographic territory of the *Ssalson* Ohlone on the northern San Francisco Peninsula. The ethnographically-known aboriginal inhabitants of the northern San Francisco Bay Peninsula were part of the Costanoan language group, though present-day descendants of the area’s native peoples prefer the term Ohlone.³¹ The Ohlone/Costanoan languages belong to the Utian family of the Penutian language stock³² and were spoken in a large

³⁰ U.S. Department of Agriculture. 1991, *Soil Survey of San Mateo County, Eastern Part, and San Francisco County, California*. Digital document, https://www.nrcs.usda.gov/Internet/FSE_MANUSCRIPTS/california/CA689/0/sanmateo.pdf, accessed August 2019.

³¹ Levy, R. 1978a Costanoan. In *Handbook of North American Indians*, Vol. 8: California, R.F. Heizer, ed., pp. 485-495. W.G. Sturtevant, gen. ed. Smithsonian Institution, Washington, D.C.

³² Shipley, W. F. 1978, Native Languages of California. In *Handbook of North American Indians*, Vol. 8: California, R.F. Heizer, ed., pp. 80-90. W.G. Sturtevant, gen. ed. Smithsonian Institution, Washington, D.C.

area extending from the San Francisco Bay area southward along the coast to Point Sur and inland to the Diablo Range and portions of the northern San Joaquin Valley.³³

Local Historical Context

The town of Hillsborough is located within the perimeters of the Mexican-era Rancho San Mateo. In 1846, Governor Pio Pico granted Rancho San Mateo to Cayetano Arenas for his military service.³⁴ In 1848, William Davis Merry Howard bought Rancho San Mateo from Arenas for \$25,000 and settled on the property near *El Camino Real* at the San Mateo Creek crossing. Howard had come to California in 1824 on one of his father's trading ships that engaged in the tallow and hide trade. He settled in California around 1839 and became a partner in a general merchandising company.

In 1856, Howard died, and the rancho was subdivided into various estates, some of which were retained by the Howard family. Early settlers to the area included the Poetts, the Redingtons and Anson Burlingame, after whom the town of Burlingame is named. During the 1860s, several churches were formed in the San Mateo/Hillsborough area, and both Rev. G. A. Easton and Rector A. L. Brewer became landowners. The small community that was forming by the 1860s consisted mainly of wealthy landowners with families, many of whom also had homes in San Francisco or commuted to San Francisco when peninsular railroad service was introduced in 1863.

By the turn of the century, both San Mateo and Burlingame had grown substantially, and city officials looked to annex the Hillsborough estates area, a proposal which the Hillsborough residents strongly opposed. The residents banded together to prevent annexation, and the town of Hillsborough was incorporated on May 5, 1910.

Regulatory Setting

State Regulations

California Environmental Quality Act

CEQA *Guidelines*, as defined in Section 15064.5(a), establish the basis for determining the significance of historical resources. The basis for defining the significance of historical resources under CEQA is found under PRC Section 5024.1 and 14 CCR Section 4850 et seq. The California Register of Historic Resources (CRHR) was established to identify the state's historical resources and indicate what properties are to be protected, to the extent prudent and feasible, from

³³ Milliken, R. T. 1983 *The Spatial Organization of Human Population on Central California's San Francisco Peninsula at the Spanish Arrival. Master's Thesis, Sonoma State University, Rohnert Park.*

³⁴ Hoover, M. E., H. E. Rensch, and E. G. Rensch, W. Abeloe, D. E. Kyle 1990 *Historic Spots in California. Fourth edition. Stanford University Press, Stanford.*

substantial adverse change. Cultural resources may be listed in the CRHR if they meet eligibility as defined under PRC Section 5024.1. According to CEQA *Guidelines* Section 15064.5(a)(3), a resource will generally be considered by the lead agency as “historically significant” if the resource possesses integrity and meets at least one of the following criteria for listing in the CRHR:

1. It is associated with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California’s history or the United States; or
2. It is associated with lives of persons important to local, California, or national history; or
3. It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master, or possesses high artistic values; or
4. It has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation.

CEQA *Guidelines* state that when a project would impact an archaeological site, the lead agency should first determine whether the site represents a historical resource eligible for listing in the CRHR as defined above or whether it meets the definition of a “unique archaeological resource” under PRC Section 21083.2(g). A “unique archaeological resource” refers to an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it

- contains information needed to answer important scientific research questions, and there is a demonstrable public interest in that information;
- has a special and particular quality such as being the oldest or best available example of its type; or
- is directly associated with a scientifically recognized important prehistoric or historic event or person.

With regard to archaeological sites, the determination and development of treatment measures for CEQA compliance requires information about their spatial extent, nature, depth and information potential. Crucial to the argument of eligibility is the “integrity” of a site. Cultural resources determined to be CRHR-eligible must be mitigated, to the extent prudent and feasible, prior to conducting ground-disturbing activities that might affect those qualities that render it eligible for listing in the CRHR. Cultural resources determined not eligible for listing in the CRHR require no further management consideration.

Federal Regulations

National Historic Preservation Act (NHPA) of 1966, as Amended

The NHPA of 1966 (54 USC 300101 et seq.), as amended, establishes a national program for historic preservation. It sets forth a general policy of preserving historic properties by the federal government for the benefit and education of the public. The NHPA directs the Secretary of the Interior in creating and maintaining the NRHP, a national listing of districts, buildings, sites, structures, and objects considered to be of local, state, or national significance for their

contributions to American history, architecture, archeology, engineering, and/or culture. Under the law, the Secretary of the Interior is directed to establish criteria for nominating properties to the NRHP and making determinations of NRHP eligibility.

The NHPA also establishes a State Historic Preservation Officer (SHPO) responsible for the identification of historic properties within each state. The SHPO ensures that properties listed in or determined eligible for listing in the NRHP are taken into account during planning and development. It further establishes the Advisory Council on Historic Preservation (ACHP) as an independent federal agency that advises the President and Congress on matters regarding historic preservation. Key provisions of the act are outlined in Sections 106 and 110 of the NHPA.

Section 106 of the National Historic Preservation Act (NHPA)

Section 106 of the NHPA serves as the regulatory basis for most of the fieldwork conducted by federal agencies. Federal agencies are required to take into account the effects of proposed undertakings on properties listed in or determined eligible for listing in the NRHP during the planning stages of a project. Further, they must identify protective or mitigation measures for historic properties that may be affected by project activities. This process is detailed in implementing regulations 36 CFR Part 60 (*National Register of Historic Places*), 36 CFR Part 63 (*Determinations of Eligibility for Inclusion in the National Register of Historic Places*), 36 CFR Part 79 (*Curation of Federally Owned and Administered Archaeological Collections*), and 36 CFR Part 800 (*Protection of Historic Properties*). Implementing regulations under 36 CFR Part 800 are particularly important, as they outline the procedural requirements for the identification and evaluation of historic properties, the determination of effects of undertakings on historic properties, and the resolution of potential adverse effects on historic properties. The ACHP may choose to comment on activities that have the potential to affect historic properties.

In 2001, implementing regulations under 36 CFR Part 800 were revised. One of the most significant changes included an expanded role for Native American tribes and Hawaiian organizations under the Section 106 process. In addition, the ACHP removed itself from reviewing determinations of no adverse effect and routine Memoranda of Agreement (MOA), and instead placed the role of regulating Section 106 with the implementing agency and with the SHPO. In 2004, further amendments to implementing regulations under 36 CFR Part 800 were enacted. Those amendments (1) established that the ACHP cannot require a federal agency to change its determinations regarding whether its undertaking affected, or adversely affected, historic properties; (2) established that Section 106 of the NHPA does not apply to undertakings that are merely subject to state or local regulations administered pursuant to a delegation or approval by a federal agency; and (3) clarified an issue regarding the time period for objections to findings of no adverse effect and established that the ACHP can propose an exemption to the Section 106 process on its own initiation, rather than requiring that a federal agency make such a proposal.

National Register of Historic Places (NRHP)

The NRHP is the official list of cultural resources, or “historic properties,” recognized for their national, state, and local significance in American history, architecture, archeology, engineering, and culture and thus worthy of preservation (US Department of the Interior [USDI] 1991). To be

eligible for listing in the NRHP, a historic property must meet one of the four significance criteria defined under 36 CFR Part 60.4. In addition to the significance criteria, NPS has identified components that must be considered in the evaluation process, including historical context and integrity. Provisions for listing in the NRHP are outlined under 36 CFR Part 60.4 as follows:

- (a) The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and
- (b) that are associated with events that have made a significant contribution to the broad patterns of our history; or
- (c) that are associated with the lives of persons significant in our past; or
- (d) that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- (e) that have yielded, or may be likely to yield, information important in prehistory or history.

Cultural resources less than 50 years old, unless of exceptional importance, are not eligible for listing in the NRHP (USDI 1991).

In order to possess sufficient integrity to be eligible for listing in the NRHP, a cultural resource must retain several aspects of integrity that are relevant to the important qualities of the resource. These aspects include the following:

- *Location* is “the place where the historic property was constructed or the place where the historic event occurred” (Little et al. 2000:36). In the case of a historical archeological site, this refers to whether or not the resource and its components have been moved from the places of their historic period use. This may refer to the location of buildings, equipment, features, or artifacts. Resources whose components have been moved have diminished integrity.
- *Design* is “the combination of elements that create the form, plan, space structure, and style of a property” (*Ibid.*). In the case of a historical archeological site, this refers to the layout of a resource or completeness of a site.
- *Setting* is “the physical environment of a historic property. Setting includes elements such as topographic features, open space, viewshed, landscape, vegetation, and artificial features” (*Ibid.*). The setting reflects the grounds of the historical archeological site, and its surrounding environment. Whether the area surrounding the site is undeveloped or if it has been encroached upon by modern development affects the integrity of setting.
- *Materials* refer to “the physical elements that were combined or deposited during a particular period of time and in a particular pattern or configuration to form a historic property” (*Ibid.*). Integrity of materials requires that the materials used to construct the resource date to the period of significance and not be altered from that period.

- *Workmanship* is “the physical evidence of the labor or skill of a particular culture or people during any given period in history” (*Ibid.*).
- *Feeling* is “a property’s expression of the aesthetic or historic sense of a particular period of time” (*Ibid.*). Generally speaking, feeling has little bearing on an archeological property’s research potential. Archeological sites such as abandoned industrial mining sites, however, may retain a strong sense feeling (Caltrans 2008:160).
- *Association* is “the direct link between an important historic event or person and a historic property. Under [Criterion] D it is measured in the strength of association between data and important research questions” (Little et al. 2000:36).

Discussion of Impacts

a,b) *Less than Significant with Mitigation Incorporated.* Pursuant to CEQA, as codified in Public Resource Code sections 5097, and its implementing guidelines 21082 and 21083.2., and NEPA, Section 106 of the National Historic Preservation Act (36 CFR Part 800), record searches, field surveys, and research were conducted to determine the potential presence of historic resources within the Project Site. The inventory of the Project Site revealed one isolated historic period (mid-twentieth century) beverage can but no standing structures, archaeological sites, artifact deposits, or potential subsurface features such as privies, pits, or wells that might yield intact cultural materials. The inventory also failed to reveal the presence of any prehistoric cultural materials.

Although there appears to be a low probability of encountering significant intact features or deposits within the Project Site, there always remains the potential to encounter buried cultural materials during Project development or implementation; especially near a creek. Therefore, significant impacts could occur and Mitigation Measure CULT-1 must be implemented during any ground disturbing activities associated with the Project. CULT-1 will ensure any potential impact to historic or archaeological resources remains less than significant.

Mitigation Measure CULT-1

Prior to initiating ground-disturbing activities, all construction personnel should be alerted to the possibility of encountering buried cultural materials (i.e., prehistoric and/or historic period resources). Personnel should be instructed that, upon discovery of buried cultural materials, work in the immediate vicinity of the find should cease and a qualified archaeologist should be contacted immediately. Once the find has been identified, it should be evaluated. If the find is determined to be significant (i.e., eligible for listing on the CRHR and/or the NRHP), it should be avoided by the Project proponent or subject to appropriate mitigation measures. Prehistoric or historic period cultural materials that may be encountered within the Project vicinity include the following:

- Historic period artifacts such as glass bottles and fragments, cans, nails, ceramic and pottery sherds, and other metal objects;
- Historic period structural or building foundations, walkways, cisterns, pipes, and other

structural elements;

- Flaked stone artifacts and debitage of obsidian, basalt, chert or other silicates;
- Groundstone artifacts such as mortars, pestles, and milling slabs or milling features such as bedrock mortars; and
- Dark, almost black soil with a “greasy” texture that may be associated with charcoal, ash, bone, shell, flaked stone, groundstone, and fire-affected rock.

- c) ***Less than Significant with Mitigation Incorporated.*** Although no formal cemeteries or other places of human internment are known to exist at the site, there would be a potentially significant impact if human bone or bone of unknown origin were uncovered during project construction; however, implementation of Mitigation Measure CULT-2 would reduce potential impacts to a less than significant level.

Mitigation Measure CULT-2

If human remains are encountered during ground disturbing activities, work in that area must cease and the San Mateo County Coroner must be notified immediately. If the remains are determined to be Native American, then the NAHC must be notified within 24 hours as required by Public Resources Code 5097. The NAHC will contact the designated Most Likely Descendant who will provide recommendations for the treatment of the remains within 24 hours.

4.6 Energy

ENERGY — Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact	Source
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"/>	1
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"/>	1

Environmental Setting

Energy usage is typically quantified using the British thermal unit (“BTU”). As a point of reference, the approximate amount of energy contained in common energy sources are as follows: gasoline, 115,000 BTUs per gallon; diesel, 138,500 BTUs per gallon; natural gas, 21,000 BTUs per pound (“lb”); electricity, 3,414 BTUs per kilowatt-hour (“kWh”).³⁵

Total energy usage in California was 7,640.8 trillion BTUs in 2012, which equates to an average of 201 million BTUs per capita. Of California’s total energy usage, the breakdown by sector is 39 percent transportation, 23 percent industrial, 19 percent residential, and 19 percent commercial. Petroleum satisfies 55 percent of California’s energy demand, natural gas 32 percent, and electricity 12 percent. Coal fuel accounts for less than one percent of California’s total energy demand.³⁶ Electric power and natural gas in California are generally consumed by stationary users, whereas petroleum consumption is generally accounted for by transportation-related energy use.³⁷ The other sources are made up of renewable energy sources, which includes wind and solar power, among other uses.

Given the nature of the proposed project, the main uses of energy would occur via construction vehicle fuel and electricity during operation. These two sources of energy are discussed in further detail below.

³⁵ U.S. Department of Energy, 2014. *Alternative Fuels Data Center – Fuel Properties Comparison*. http://www.afdc.energy.gov/fuels/fuel_comparison_chart.pdf

³⁶ U.S. Department of Energy, Energy Information Administration, 2014. “Official Energy Statistics from the U. S. Government,” http://tonto.eia.doe.gov/state/state_energy_profiles.cfm?sid=CA.

³⁷ *Ibid.*

Regulatory Setting

Federal and state agencies regulate energy use and consumption through various means and programs. At the federal level, the United States Department of Transportation, the United States Department of Energy, and the United States Environmental Protection Agency (EPA) are three federal agencies with substantial influence over energy policies and programs. Generally, federal agencies influence and regulate transportation energy consumption through establishment and enforcement of fuel economy standards for automobiles and light trucks, through funding of energy related research and development projects, and through funding for transportation infrastructure improvements.

At the state level, the California Public Utilities Commission (CPUC) and the California Energy Commission (CEC) are two agencies with authority over different aspects of energy. The CPUC regulates privately owned utilities in the energy, rail, telecommunications, and water fields. The CEC collects and analyzes energy-related data, prepares statewide energy policy recommendations and plans, promotes, and funds energy efficiency programs, and adopts and enforces appliance and building energy efficiency standards. California is exempt under federal law from rules that otherwise would preempt setting state fuel economy standards for new on-road motor vehicles. Some of the more relevant federal and state energy-related laws and plans are discussed below.

Federal Regulations

Energy Policy Act of 2005

Passed by Congress in July 2005, the Energy Policy Act includes a comprehensive set of provisions to address energy issues. The act includes tax incentives for the following: energy conservation improvements in commercial and residential buildings; fossil fuel production and clean coal facilities; and construction and operation of nuclear power plants, among other things.

Energy Independence and Security Act of 2007

Signed into law in December 2007, this broad energy bill included an increase in auto mileage standards, and also addressed biofuels, conservation measures, and building efficiency. The U.S. EPA administers the Corporate Average Fuel Economy (CAFE) program, which determines vehicle manufacturers' compliance with existing fuel economy standards. The bill amended the CAFE standards to mandate significant improvements in fuel efficiency (i.e., average fleet wide fuel economy of 35 miles per gallon (mpg) by 2020, versus the previous standard of 27.5 mpg for passenger cars and 22.2 mpg for light trucks).³⁸

³⁸ EPA. 2007. *Summary of the Energy Independence and Security Act*. Available online at: <https://www.epa.gov/laws-regulations/summary-energy-independence-and-security-act>

State Regulations

Title 24 (California Energy Code)

The California Energy Code (Title 24, Part 6, of the California Code of Regulations, California's Energy Efficiency Standards for Residential and Nonresidential Buildings), provides energy conservation standards for all new and renovated commercial and residential buildings constructed in California. The provisions of the California Energy Code apply to the building envelope, space-conditioning systems, and water-heating and lighting systems of buildings and appliances; they also give guidance on construction techniques to maximize energy conservation. Minimum efficiency standards are given for a variety of building elements, including appliances; water and space heating and cooling equipment; and insulation for doors, pipes, walls, and ceilings. The CEC adopted the 2005 changes to the Building Efficiency Standards, which emphasized saving energy at peak periods and seasons, and improving the quality of installation of energy-efficiency measures. It is estimated that implementation of the 2005 Title 24 standards have resulted in an increased energy savings of 8.5 percent relative to the previous Title 24 standards. Compliance with Title 24 standards is verified and enforced through the local building permit process.³⁹ The 2008 Title 24 Standards, which had an effective date beginning August 1, 2009, include added provisions that require, for example, "cool roofs" on commercial buildings; increased efficiency in heating, ventilating, and air conditioning systems; and increased use of skylights and more efficient lighting systems.⁴⁰ Title 24 Standards were further updated with the 2013 Building Energy Efficiency Standards, which are estimated to lead to 25 percent less energy consumption for residential buildings and 30 percent savings for nonresidential buildings over 2008 Energy Standards. 2013 standards, which updated codes for lighting, space heating and cooling, ventilation, and water heating, took effect on July 1st 2014.

California Global Warming Solutions Act of 2006

In September 2006, the governor signed AB 32, the Global Warming Solutions Act of 2006, which mandates that California's GHG emissions be reduced to 1990 levels by 2020. The act directs the California EPA to work with state agencies to implement a cap on GHG emissions (primarily carbon dioxide) from stationary sources of such as electric power generation facilities, and industrial, commercial, and waste-disposal sectors. Since carbon dioxide emissions are directly

³⁹ *California Energy Commission (2016) Web site (Building Efficiency Standards), <http://www.energy.ca.gov/title24>*

⁴⁰ *Ibid.*

proportional to fossil fuel consumption, the cap on emissions is expected to have the incidental effect of forcing a reduction in fossil fuel consumption from these stationary sources. Specifically, AB 32 directs the California EPA to work with other state agencies to accomplish the following: 1) promulgate and implement GHG emissions cap for the electric power, industrial, and commercial sectors through regulations in an economically efficient manner; 2) institute a schedule of greenhouse gas reductions; 3) develop an enforcement mechanism for reducing GHG; 4) establish a program to track and report GHG emissions.⁴¹

Senate Bill 32

Enacted in 2016, Senate Bill (SB) 32 (Pavley, 2016) codifies the 2030 GHG emissions reduction goal of Executive Order B-30-15 by requiring CARB to ensure that statewide GHG emissions are reduced to 40 percent below 1990 levels by 2030. Similar to AB 32, a reduction in GHG emissions typically corresponds with a reduction in energy usage as the bulk of GHGs result from the combustion of fossil fuel.

SB 32 was coupled with a companion bill: AB 197 (Garcia, 2016). Designed to improve the transparency of CARB's regulatory and policy-oriented processes, AB 197 created the Joint Legislative Committee on Climate Change Policies, a committee with the responsibility to ascertain facts and make recommendations to the Legislature concerning statewide programs, policies and investments related to climate change. AB 197 also requires CARB to make certain GHG emissions inventory data publicly available on its web site; consider the social costs of GHG emissions when adopting rules and regulations designed to achieve GHG emission reductions; and, include specified information in all Scoping Plan updates for the emission reduction measures contained therein.

Local Regulations

In addition to federal and state regulations and guidelines, there are Town of Hillsborough General Plan goals and policies relevant to energy usage found in the Land Use, Circulation, and Open Space Elements. .

Discussion of Impacts

- a) ***Less than Significant Impact.*** The Project would require the use of diesel and other fuels for trucks and equipment during construction, but these activities would be short-term and completed as efficiently as possible for practical and financial reasons, among other considerations. There would be no ongoing energy consumption in the operational phase of the project in excess of the current baseline condition. Given the importance of updating the corroded storm drain system for public health and safety reasons, the minor

⁴¹ Assembly Bill 32, Passed August 31, 2006, <http://www.arb.ca.gov/cc/docs/ab32text.pdf>.

and temporary amount of energy used for construction is not wasteful, inefficient, or unnecessary. Impacts in this regard would therefore be less than significant.

- b) ***Less than Significant Impact.*** The Project would replace an existing storm drain system and daylight a portion of currently culverted creek. The degree of energy consumption due to the new storm drain system would not be changed from current baseline conditions. While the Proposed Project may not necessarily advance state and local renewable energy plans, it certainly would not hinder or obstruct such plans either. Impacts would be less than significant.

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4.7 Geology and Soils

GEOLOGY AND SOILS — Would the project:	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>	Source
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"/>	2,16
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,2,16
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,2,16
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,2,16
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,2,16
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 type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,2,16
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code, creating substantial direct or indirect risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,2,16
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 checked="" type="checkbox"/>	<input type="checkbox"/>	1,2,16
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,2,16

Environmental Setting

Soils

The majority of the Town of Hillsborough is underlain by disturbed soil, identified as urban land or orthents. The rest is comprised of Fagan Loam, Los Gatos Loam, Maymen Gravelly Loam, and Obispo Clay, all of which are on slopes of 15 percent or more. The Barnabe-Rock Outcrop Complex, Fagan Loam, Los Gatos Loam, and Maymen Gravelly Loam have a high to very high potential for erosion. The Project Site itself is located nearly entirely on Orthents, cut and fill-Urban land complex of 5 to 75 percent slopes.

Seismicity

Hillsborough is located within the seismically active San Francisco Bay region, one of the most seismically active zones in the United States. The faults in the region are capable of generating earthquakes of at least 8.0 in magnitude on the Richter scale, producing very strong ground shaking in Hillsborough. The closest fault line to Hillsborough is the San Andreas Fault, which runs along the western boundary of the Town. There are no fault lines identified within the Town limits and the Town is not within an Alquist-Priolo designated zone, so the risk of seismically induced ground rupture is low.

Liquefaction and Lateral Spreading

Soil liquefaction is a phenomenon primarily associated with saturated, cohesionless soil layers located close to the ground surface. During liquefaction, soils lose strength and ground failure may occur. According to the Town of Hillsborough General Plan Liquefaction Hazard Areas map and the ABAG Resilience Program hazards map, the Project Site has very low potential for liquefaction, despite its gravelly soils.

Landslide

The Town of Hillsborough General Plan discusses hazards associated with seismic activity, such as landslides. According to the General Plan Landslide Hazards Map, the Project Site has displayed little evidence of past landslides.

Regulatory Setting

Safety standards and building specifications relating to earthquakes, seismic-related ground failure, landslides, geology, and soils are mainly regulated via the Alquist-Priolo Earthquake Fault Zoning Act, as amended in 1994, as well as the California Building Code (CBC).

The Alquist-Priolo Act's main purpose is to prevent the construction of buildings used for human occupancy on the surface trace of active faults. The Act requires the state's California Geological Survey agency to compile and maintain up-to-date maps of surface traces of known active earthquake faults. Before a new project is permitted, cities and counties require a geologic investigation to demonstrate that proposed buildings will not be constructed on active Alquist-Priolo fault zones.

The CBC, based on the International Code Council, requires specific tests for masonry and other building elements of newly constructed buildings to ensure structures can adequately resist seismic forces during earthquakes.

Discussion of Impacts

- a-i,) **No Impact.** The project site is not located within a State of California designated Alquist-Priolo Earthquake Fault Zone (California Department of Conservation, 1974). Earthquake fault zones are regulatory zones that encompass surface traces of active faults that have a potential for future surface fault rupture. The closest active fault to the Project Site is the San Andreas Fault, located approximately 1 mile to the southwest of the Project Site at its closest point. No faults cross through the Project Site, and surface rupture associated with a fault is not anticipated in the Town. No impacts would occur.
- a-ii) **Less than Significant Impact.** The potential for seismic ground-shaking at the Project Site is “violent” according to the Association of Bay Area Government’s (ABAG) Resilience Program hazards map, but seismic-related ground failure is not anticipated. The Project Site’s proximity to the active San Andreas Fault leaves it vulnerable to some degree of ground shaking, which is common in the Bay Area. The Proposed Project would not create a need or opportunity for people to reside on-site and thus be exposed to such ground shaking long-term. If an earthquake were to occur during the construction phase, it could create a risk for workers on-site, but under the obligation of the Occupational Safety and Health Act (OSHA), construction workers would be trained to take the necessary precautions to maintain worker safety in the event of an earthquake. Given these legal obligations, the impacts related to this topic would be less than significant.
- a-iii) **Less than Significant Impact.** Liquefaction occurs when a saturated or partially saturated soil substantially loses strength and stiffness in response to an applied stress, such as seismic shaking, which causes a solid to behave like a liquid. Soils susceptible to liquefaction are saturated, loose, granular deposits. Liquefaction can result in flow failure, lateral spreading, ground movement, settlement, and other related effects. Buried pipelines embedded within liquefied soils may also experience uplift due to buoyancy.
- According to ABAG’s Resilience Program hazards map, the Project Site has a low to very low susceptibility to liquefaction, despite its gravelly soil composition. Therefore, the likelihood of damage to the Project due to liquefaction is low. In addition, the Project would be subject to all Federal, State, and local regulations for seismic conditions, including the CBC. Impacts would be less than significant.
- a-iv) **Less than Significant Impact.** Landslides are frequently triggered by strong ground motions. They are an important secondary earthquake hazard. The term landslide includes a wide range of ground movement, such as rock falls, deep failure of slopes, and shallow debris flows. Despite the hilly topography and steep slopes in the area, landslides from seismic activity are infrequent according to ABAG’s Resilience Program hazards map.

The project is subject to all Federal, State, and local regulations and standards for seismic conditions, including the CBC, and would be designed to conform to all building requirements. Given the low risk of landslides at the project site and the legal obligations associated with seismic building design, impacts associated with seismic landslides would be less than significant.

- b) ***Less than Significant Impact.*** Construction would involve limited soil disturbance, which could temporarily expose soils to wind and water erosion. However, the Project would not cause a substantial change to erosion and accretion patterns of the area long-term because the improvements would not alter the overall existing drainage pattern of the area. In fact, the step-pool design for the creek daylighting activities is designed to reduce the fast-paced erosion occurring immediately downstream. Temporary construction impacts related to run-off from the cut soil stored on-site could occur, but standard measures from the required Stormwater Pollution Prevention Program (SWPPP) would be implemented to ensure impacts from runoff would remain less than significant. BAAQMD construction measures would be implemented to minimize the potential for erosion and indirect effects associated with soil erosion (i.e., water quality impacts, fugitive dust). Impacts on soil would therefore be less than significant.
- c,d) ***Less than Significant Impact.*** As discussed above, the Project Site does not have a history of landslides and is not anticipated to be susceptible to landslides, subsidence, or liquefaction based on information on the site's soils and the adjacent parcel's liquefaction risk. The soil types at the Project Site are similar to those throughout the rest of Hillsborough and have not been identified as presenting special risk of lateral spreading or collapse. Further, the Project does not propose construction of new structures that would create risk to life or property. The Project will improve the stability and capacity of the storm drain by replacing it with newer and stronger material and will daylight a creek that will stabilize erosion downstream. Lastly, as mentioned above, the project is subject to all Federal, State, and local regulations and standards for seismic conditions.
- e) ***Less than Significant Impact.*** The Proposed Project replaces an existing stormwater drainage system with updated materials and capacity. Soils in the area already support this use and the Proposed Project would not change that baseline condition. Therefore, impacts would be less than significant.
- f) ***Less than Significant Impact.*** The Project Site follows existing utility rights-of-way on previously disturbed land. Excavation of soil would be required, but much of the soil is cut and fill-Urban land complex and is therefore non-native and unlikely to contain any paleontological resources. The ground disturbance associated with the project would not change the topography or geologic substructures of the vicinity, except to restore a once-existing creek to flow aboveground, and would therefore not change any unique geologic features. Impacts would be less than significant.

4.8 Greenhouse Gas Emissions

GREENHOUSE GAS EMISSIONS — Would the proposed Project:	<i>Potentially Significant Impact</i>	<i>Less than Significant Mitigation Incorporated</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>	<i>Source</i>
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"/>	1
b) Conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1

Environmental Setting

Greenhouse gases (GHGs) are heat-trapping gases that, when emitted to the earth's atmosphere, contribute to an abnormally fast rate of planetary warming. The consequences of these warming patterns include rising sea levels and increased frequency and intensity of natural disasters, among other issues. The major GHGs released by human activity are carbon dioxide (CO₂), methane, and nitrous oxide. Although less potent than other GHGs such as methane, CO₂ is the most common and therefore the greatest contributor to man-made global warming. Accordingly, GHGs are expressed in terms of CO₂ equivalents (CO_{2e}) based on their global warming potential.

Assembly Bill 32, adopted in 2006, established the Global Warming Solutions Act of 2006 which requires the State to reduce GHG emissions to 1990 levels by 2020. Senate Bill 97, adopted in 2007, required the Governor's Office of Planning and Research to develop CEQA guidelines for the mitigation of greenhouse gas emissions, and the Resources Agency certified and adopted the amendments to the guidelines on December 30, 2009. According to CEQA Guidelines Section 15064.4, the lead agency may quantitatively or qualitatively assess the proposed Project's impact on GHGs. The lead agency should consider the proposed Project's reasonably foreseeable incremental contribution to the effects of climate change using evolving scientific knowledge, state regulatory schemes, and an appropriate timeframe for the proposed Project.

The Town of Hillsborough adopted its Climate Action Plan (CAP) in 2010. The CAP is the Town's primary guidance document on attaining AB 32 standards. The CAP outlines goals, strategies, and next steps to attain the Town's GHG reduction goals as well as providing background information pertinent to these efforts. According to the CAP, residential and transportation emissions comprise the large majority of the Town's emissions (55% and 39%, respectively, as of 2005). As of 2005, the Town emitted approximately 82,724 metric tons CO_{2e} per year. Pursuant to the requirements of AB 32, the CAP targets a 15% reduction from this quantity by 2020. The Town therefore aims to annually emit no more than 70,316 metric tons CO_{2e} by 2020. Most GHG reduction efforts recommended by the CAP target residential development, landscaping, and energy efficiency.

Discussion of Impacts

- a) ***Less than Significant Impact.*** The proposed Project would not directly or indirectly generate GHG emissions in the long-term. The proposed Project would replace existing stormwater infrastructure and daylight a portion of Cherry Creek. The replacement stormwater system would not require the use of any pumps or other electrical equipment that would emit GHGs. Accordingly, there would be little to no change from the baseline condition where negligible GHGs are generated.

In the short-term, the proposed Project would require the use of gasoline and/or diesel powered equipment including an excavator, dump truck, steel wheel roller, and vibrating plate compactor or rammer. Additionally, equipment would be staged at three off-site locations and would be transported to the site with trucks powered by gasoline or diesel. Similarly, excess soils, trees removed during site preparation, and solid waste from stormwater infrastructure removal would require off-site hauling. Construction would take place over a span of roughly seven months and cover a small geographic area. The Project Site is approximately 0.48 acres in size. Off-site staging areas range from 0.8 to 4.5 miles driving from the site. Solid waste would travel approximately 28.7 miles from the site. Given these short distances, the small size of the Project Site, and the short duration of construction, Project construction would not generate significant GHGs.

In summary, the proposed Project would not directly or indirectly emit any GHGs in the long-term. During construction, equipment use and material hauling would generate GHGs, but the small size and limited duration of construction make it such that any such GHGs could not be considered significant in the context of the Town's Climate Action Plan. Accordingly, the proposed Project would not directly or indirectly generate GHGs which may have a significant impact on the environment; and a less than significant impact would occur.

- b) ***Less than Significant Impact.*** The proposed Project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions. BAAQMD does not have a formal threshold measuring compliance with their Clean Air Plan's goal of reducing GHG emissions. BAAQMD does, however, recommend that lead agencies evaluate their Project's GHG emissions in the context of state-wide AB 32 goals. This assessment is consistent with the Town of Hillsborough's Climate Action Plan, which outlines goals and recommendations for the Town to achieve its requisite AB 32 GHG reductions.

Given the proposed Project's relatively minimal contribution to the region's GHGs, the long-term positive benefits of daylighting on carbon sequestration, and that the proposed Project would not be growth-inducing, the proposed Project would not impede the attainment of AB 32 goals. As such, the Project would not conflict with any applicable plans, policies, or regulations adopted for the purpose of reducing GHG emissions, and there would be less than significant impacts.

4.9 Hazards and Hazardous Materials

HAZARDS AND HAZARDOUS MATERIALS — Would the proposed Project:	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>	<i>Source</i>
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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1
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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1
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"/>	1
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"/>	1
e) For a Project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the proposed Project result in a safety hazard or excessive noise for people residing or working in the proposed Project Site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1
g) Expose people or structures to a significant risk of loss, injury or death involving wildland fires?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1

Environmental Setting

A material is considered hazardous if it appears on a list of hazardous materials prepared by a federal, state, or local agency or if it has characteristics defined as hazardous by such an agency. A hazardous material is defined in Title 22, Section 66261.10 of the California Code of Regulations as a substance with physical, chemical, or infectious characteristics which may cause or contribute to mortality or illness or pose a threat to human health or the environment when mismanaged. Chemical and physical properties which may cause a substance to be considered hazardous include toxicity, ignitability, corrosivity, and reactivity.

Under Government Code Section 65962.5, the California Department of Toxic Substances Control (DTSC) maintains a list of hazardous substance sites. This list, referred to as the “Cortese List,” includes CALSITE hazardous material sites, sites with leaking underground storage tanks, and landfills with evidence of groundwater contamination. The State Water Resource Control Board (State Water Board) GeoTracker database similarly documents hazardous waste sites throughout the state but focuses on groundwater contamination. Both databases indicate that there are no hazardous material sites within one-quarter mile of the Project Site.^{42,43} The nearest site on the Cortese List is a leaking underground storage tank approximately 0.4 miles away (Global ID T0608188660), and cleanup was deemed complete upon issuance of a No Further Action Letter by the State Water Board on August 7, 2003.⁴⁴

Discussion of Impacts

a, b) ***Less than Significant with Mitigation Incorporated.*** In the long-term, the proposed stormwater system replacement and creek daylighting would not require the use, transport, or disposal of any hazardous materials. Upon Project completion, the Project Site would contain HDPE piping, boulders, and riparian vegetation, none of which would create the need for hazardous material use or transport. As such, there would be no long-term risks associated with the use, transportation, or disposal of hazardous materials, nor would there be any long-term risks of accident and upset conditions releasing hazardous materials into the environment.

Construction would require use of motorized equipment, creating the need for routine use of small quantities of hazardous materials such as fuels and lubricants during the seven-month construction period. This would take place in a creek bed within a residential

⁴² Department of Toxic Substances Control, “EnviroStor Database,” Accessed November 8, 2018, <https://www.envirostor.dtsc.ca.gov/public/map/>.

⁴³ State Water Resources Control Board, “GeoTracker,” Accessed November 8, 2018., <https://geotracker.waterboards.ca.gov/datadownload>.

⁴⁴ State Water Resources Control Board, “GeoTracker,” Accessed November 8, 2018., <https://geotracker.waterboards.ca.gov/datadownload>.

community. Construction would take place during the dry season and equipment would be staged off-site, minimizing the risk of hazardous material spills adversely affecting the downstream environment. Nonetheless, use of hazardous materials in close proximity to aquatic resources and a residential community would create a small risk of releasing hazardous materials into the environment. Mitigation Measure HAZ-1 requires the contractor to implement equipment management and spill procedures provided by San Mateo County's Water Pollution Prevention Program. These procedures dictate where and how equipment may be stored and how spills should be handled. With implementation of Mitigation Measure HAZ-1, the proposed Project would not create a significant hazard through the routine transport, use, or disposal of hazardous materials, nor would it create a significant hazard to the public through reasonably foreseeable accident and upset conditions involving hazardous materials. Accordingly, impacts would be less than significant with mitigation incorporated.

Mitigation Measure HAZ-1:

Throughout construction, the contractor shall comply with San Mateo County's Water Pollution Prevention Program stormwater best management practices (BMPs). Implementation of BMPs shall be verified by the Town of Hillsborough through at minimum, one site inspection during construction. Stormwater BMPs to be implemented during construction include the following:

- The contractor shall perform all major maintenance, repair, and vehicle and equipment washing off-site;
 - If refueling or vehicle maintenance must be performed on-site, it shall be conducted in a bermed area away from storm drains and over a drip pan or drop cloths large enough to collect fluids. Fluids shall be recycled or disposed of as hazardous waste;
 - If vehicle or equipment cleaning must be done on-site, it shall be performed with water only in a bermed area that will not allow rinse water to run into gutters, streets, storm drains, or surface waters;
 - Vehicle and equipment on-site shall not be cleaned using soaps, solvents, degreasers, or steam cleaning equipment;
 - Spill cleanup materials shall be available at the construction site at all times;
 - Vehicles and equipment shall be inspected frequently and leaks repaired promptly. Drip pans shall be used to catch any leaks until repairs are made;
 - Spills or leaks shall be immediately cleaned and properly disposed of;
 - Dry cleanup methods shall be used in the event of a fluid spill;
 - Significant spills shall be reported to a local emergency response entity or the Governor's Office of Emergency Services Warning Center immediately.
- c) **No Impact.** The Project Site is not located within one-quarter mile of any schools. The nearest school is West Hillsborough Elementary and Preschool, located approximately 0.3

miles from the Project Site. Further, fuels, lubricants, and any other potentially hazardous materials used during Project construction would be handled carefully in compliance with all applicable laws and regulations and would have little to no chance of affecting any nearby schools. As there are no schools within a quarter mile of the Project Site and it is unlikely that nearby schools would be affected by the use of fuels, lubricants, and other chemicals on the Project Site, there would be no impact.

- d) **No Impact.** According to the California DTSC EnviroStor and State Water Board GeoTracker databases, the Project Site is not included on the list of hazardous material sites compiled pursuant to Government Code Section 65962.5. Furthermore, there are no such sites in the vicinity of the Project Site. As there are no hazardous waste sites in or near the Project Site, the proposed Project would not create a hazard to the public or environment through location on a hazardous materials site and no impact would occur.
- e) **No Impact.** The Project Site is within the area of influence of the San Carlos Airport.⁴⁵ The proposed Project would not introduce any tall structures, sources of light, or habitat which may attract more birds to the area. As such, the proposed Project would not create a hazard to flight. Furthermore, the San Carlos Airport's Land Use Compatibility Plan⁴⁶ provides noise contours for the airport up to 60 decibels; the Project Site is not within any of the airport's noise contours provided by the plan, indicating minimal background noise from airport-related activity. As such, the proposed Project would not create excessive noise for people living in the vicinity of an airport. As the proposed Project would not create hazards or excessive noise for people living in the vicinity of an airport, no impact would occur.
- f) **Less than Significant with Mitigation Incorporated.** The Town of Hillsborough is characterized by its residential, semi-rural character. The Town's streets were therefore designed to accommodate minimal through-traffic. In the vicinity of the Project Site, most streets have one lane in each direction and do not have a shoulder or parking spaces. Construction equipment would be staged off-site when not in use, minimizing the risk of obstructing emergency response during evenings and weekends, when construction would not occur. During construction hours, however, given the narrow design of adjacent roadways it is possible that on-site construction equipment could obstruct emergency response in the event of an evacuation or should emergency vehicles require passage. Mitigation Measure HAZ-2 requires notification of emergency service providers 72-hours

⁴⁵ City of Hillsborough, "General Plan | Hillsborough, CA - Official Website," 2005, <https://www.hillsborough.net/267/General-Plan>.

⁴⁶ Environmental Science Associates, "Comprehensive Airport Land Use Compatibility Plan for the Environs of San Carlos Airport" (Redwood City, CA, October 2015), http://52.43.20.201/wp-content/uploads/2015/11/SQL_FinalALUCP_Oct15_read.pdf.

prior to the start of construction and compliance with the Town of Hillsborough's recommended traffic BMPs during construction, minimizing the risk of obstructing emergency access. Following construction, the proposed Project would not interfere with an emergency response plan, as Project modifications would generally be confined to a creek bed which does not contain any emergency response infrastructure. The proposed Project would therefore not lead to physical modification or obstruction of emergency response infrastructure such as communication systems or roadways. As such, the proposed Project would not impair implementation of or physically interfere with implementation of an emergency response or evacuation plan, and impacts would be less than significant with mitigation incorporated.

Mitigation Measure HAZ-2:

The contractor shall implement the following actions throughout the duration of construction to maintain adequate emergency access to the site and through the adjacent neighborhood:

- Traffic controls, flag persons, signage, and safety site controls shall be used at all times when work is being done in the Town's right-of-way or equipment is obstructing the right-of-way;
- The contractor shall obtain all clearances and permits required by the Town for work within its right-of-way prior to the start of construction;
- The contractor shall comply with truck routes specified in the grading application, if any;
- The Town or a representative of the Town shall prepare a parking plan. The contractor shall comply with the parking plan and shall not damage adjoining or nearby parking strips;
- If any other construction Projects are being implemented in the vicinity of the Project Site, the contractor shall coordinate all parking, construction processes, and deliveries with other nearby construction sites;
- The contractor shall notify the Hillsborough Police Department and Central County Fire of construction at minimum 72 hours prior to its start.

- g) ***Less than Significant with Mitigation Incorporated.*** Fire risk in the Town of Hillsborough is pronounced due to the presence of dense vegetation that may serve as potential fuel sources throughout residential communities. This risk is further exacerbated by the presence of narrow, winding roadways, which could slow down evacuation procedures in the event of a fire. The proposed Project would not increase fire risk in the long term, as no new structures or fuel sources would be introduced to the Project Site and the proposed Project would not draw new people who would be exposed to fire risk to the area. In the short-term, the presence of motorized equipment in the creekbed during the dry season may lead to a small, temporary increase in fire risk. Mitigation measure HAZ-3 requires that the contractor remove potential fuel sources such as dried vegetation and requires provision of fire extinguishers for service trucks, among other fire risk reducing measures. With implementation of Mitigation Measure HAZ-3, the proposed Project would not expose people or structures to risk of loss, injury, or death involving

wildland fires. Impacts would accordingly be less than significant with mitigation incorporated.

Mitigation Measure HAZ-3:

During construction activities, the construction contractor shall implement the following best management practices to prevent fire hazards:

- Staging areas, welding areas, or areas slated for development using spark producing equipment shall be cleared of dried vegetation or other materials that could serve as fire fuel. To the extent feasible, the contractor shall keep these areas clear of combustible materials in order to maintain a firebreak.
- Vehicle engines shall be shut down during refueling.
- No smoking, open flames, or welding shall be allowed in refueling or service areas.
- Service trucks shall be provided with fire extinguishers.
- Any construction equipment that normally includes a spark arrester shall be equipped with an arrester in good working order.

4.10 Hydrology and Water Quality

HYDROLOGY AND WATER QUALITY — Would the proposed Project:	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>	<i>Source</i>
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the proposed Project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1
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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,16
ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1
iv) Impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to Project inundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1,14

Environmental Setting

Hydrology

The Project Site is not located within a 100-year floodplain⁴⁷, dam inundation zone⁴⁸, or tsunami inundation area.⁴⁹ The Project Site is approximately 1.1 miles northwest of Lower Crystal Springs Reservoir, the nearest waterbody where seiche is of potential concern.

The Project Site is in the San Mateo Creek Watershed, a portion of the greater San Francisco Bay Watershed. Other waterbodies in the San Mateo Creek watershed include Polhemus Creek, Upper and Lower Crystal Springs Reservoir, and San Andreas Reservoir.⁵⁰

The Project Site is located within the Westside Groundwater Basin, a sub-basin within the San Francisco Bay study unit. The Westside Groundwater Basin has a surface area of approximately 25,400 acres (40 square miles). Groundwater quality in this basin is generally satisfactory, with most dissolved constituents meeting water quality guidelines established by the United States Environmental Protection Agency (EPA), apart from nitrates/nitrogen, which commonly exceeds primary maximum contaminant levels. Primary recharge sources in this basin include rainfall infiltration, irrigation infiltration, and water and sewer pipe leakage.⁵¹ Groundwater discharge sources in the San Francisco Bay Region are mainly comprised of water pumped for municipal supply, evaporation, and discharge to streams and the San Francisco Bay.⁵²

The Project Site centers around Cherry Creek, an intermittent headwater stream with stormwater flows following rain events, typically from October to April. Base flows typically recede in spring and the creek stops flowing in summer, though some isolated pools may remain year-round. Cherry Creek is fed by tributaries such as the unnamed tributary under Hayne Road which increases flows by roughly 50%. Upstream and downstream of the Project Site, Cherry Creek is a step pool channel, a steep channel with areas of exposed bedrock. The creek bank within the Project Site has slopes of approximately 25%.

⁴⁷ Association of Bay Area Governments and Federal Emergency Management Agency, "Bay Area Hazards," March 2015, <http://gis.abag.ca.gov/website/Hazards/?hlyr=concordGV&co=6013>.

⁴⁸ City of Hillsborough, "General Plan | Hillsborough, CA - Official Website."

⁴⁹ Association of Bay Area Governments and California Geological Survey, "Bay Area Hazards," December 2009, <http://gis.abag.ca.gov/website/Hazards/?hlyr=concordGV&co=6013>.

⁵⁰ "San Mateo Creek Watershed," accessed June 27, 2019, <http://explore.museumca.org/creeks/1520-RescSMateo.html>.

⁵¹ California Groundwater Bulletin, "Westside Groundwater Basin," January 20, 2006, <https://www.smcsustainability.org/download/energy-water/groundwater/2-35.pdf>.

⁵² United States Geological Survey, "Groundwater Quality in the San Francisco Bay Groundwater Basins, California," March 2013, <https://pubs.usgs.gov/fs/2012/3111/pdf/fs20123111.pdf>.

Step-pool channels like Cherry Creek are characterized by an accumulation of large rock features, like cobbles and boulders, which are organized by the high velocity of downhill creek flow into discrete rib-like formations that span the channel. The ribs form an alternating series of steps and pools that decrease in elevation as the creek flows downhill. Step-pool structures are characteristic of relatively steep, coarse-grained, and confined mountain streams; they provide both grade control during high flows and instream habitat during low flows.

During design of the proposed Project, WRA Inc. (WRA) considered natural hydrologic processes, open channel hydraulics, erosion, sedimentation, and ecohydrology. The proposed Project was designed for long-term stability and flood risk management, among other considerations. Hydraulic models were computed to assess flood risk to neighboring properties during a 100-year event, to determine the profile and cross-sectional geometry of the channel, and to determine an appropriate size for channel lining material.

Water Quality

Hillsborough is part of the San Mateo Countywide Water Pollution Prevention Program (Countywide Program). The Countywide Program is a collaboration between 22 member agencies, which include the County of San Mateo and various towns and cities on the Peninsula. The Countywide Program holds a Municipal Regional Permit (MRP) that covers countywide stormwater discharges pursuant to the National Pollutant Discharge Elimination System (NPDES) program under the Clean Water Act (CWA). The MRP is part NPDES permit CAS612008, administered by the San Francisco Regional Water Quality Control Board (SF Water Board). MRP implementation programs include pesticide, mercury, polychlorinated biphenyl, and copper controls; construction site control; water quality monitoring; and others. Construction site control measures include erosion control, run-on and run-off control, sediment control, active treatment systems, and non-stormwater management.⁵³

The Town of Hillsborough's Public Works Division oversees NPDES compliance for public and private Projects. The Town's Storm Water Management and Discharge Control Ordinance requires that applicants for all Projects develop a stormwater drainage plan that produces no net increase in flooding on-site or off-site due to exceedance of stormwater drainage system capacity. The ordinance further requires integration of stormwater BMPs into landscape and grading design plans to minimize runoff and increase on-site retention and infiltration⁵⁴.

⁵³ *California Regional Water Quality Control Board - San Francisco Bay Region, "Municipal Regional Stormwater NPDES Permit, Order No. R2-2015-0049, NPDES Permit CAS612008," November 19, 2015, https://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/stormwater/Municipal/R2-2015-0049.pdf.*

⁵⁴ *"Division V. - Storm Drainage | Code of Ordinances | Hillsborough, CA | Municode Library," accessed June 27, 2019, https://library.municode.com/ca/hillsborough/codes/code_of_ordinances?nodeId=TIT13PUSE_DIVVSTDR_CH13.50_STMADICO_13.50.120REPOST.*

Discussion of Impacts

- a) ***Less than Significant with Mitigation Incorporated.*** The proposed Project would not have any long-term impacts on water quality. Existing corrugated metal and reinforced concrete pipes would be replaced with high-density polyethylene (HDPE) pipes. The metal pipes currently present are rusted, so replacement with stable, corrosion-resistant HDPE pipes would be modestly beneficial to water quality.

During construction, mature riparian vegetation currently present in the creek bank would be removed. The temporary impact to water quality which would occur upon removal of riparian vegetation is minor given the small size of the Project Site and the limited scope of tree removal. Trees which are not proposed for removal would be protected through best management practices outlined in the Project Description, and riparian vegetation would be re-planted during creek daylighting activities.

Other water quality impacts which could result from construction include potential erosion or spills. Construction would occur in the dry season, when the extent of Cherry Creek within the Project Site experiences limited, if any flows. The possibility of spills, erosion, or siltation associated with construction adversely affecting water quality are therefore minimal. Implementation of best management practices would further reduce this possibility and reduce potential impacts to less than significant levels. Thus, with implementation of Mitigation Measures HAZ-1 (Section 4.9) and HYDRO-1, the proposed Project would not violate water quality standards or impair water quality, and impacts would be less than significant with mitigation incorporated.

Mitigation Measure HYDRO-1:

The Contractor shall implement earthmoving best management practices as recommended by the San Mateo Countywide Water Pollution Prevention Program to prevent erosion and siltation during construction. Compliance shall be verified by the Town of Hillsborough through at minimum, one construction site inspection. These measures include, but are not necessarily limited to:

- Grading and excavation work shall occur during dry weather;
- All denuded areas shall be stabilized through installation of temporary erosion controls such as erosion control fabric or bonded fiber matrix. These controls shall be maintained until vegetation is established;
- Sediment shall be prevented from migrating off-site and storm drain inlets shall be protected by installing and maintenance appropriate BMPs such as fiber rolls, silt fences, sediment basins, gravel bags, berms, etc.
- Excavated soil shall be stored and transferred on-site to the extent feasible;
- Stockpiled landscaping materials shall be protected from wind and rain through storage under tarps; and
- Any erodible landscape material shall not be applied within two days prior to a forecasted rain event.

- b) **No Impact.** The proposed Project would replace an existing stormwater system and restore a segment of Cherry Creek. These improvements would not require introduction of any new impervious surfaces in areas previously penetrable for groundwater recharge purposes. Furthermore, the proposed Project would not require any use of groundwater.

There may be a small, temporary increase in on-site water use during construction. This would be provided by the San Francisco Public Utility Commission's existing water supply, which is sourced entirely from surface water. The proposed Project would not likely require dewatering in the creek bed, as construction is scheduled to occur during the dry season. It is unlikely that any groundwater would be encountered during construction, as storm drain replacement would occur in the footprint of the existing storm drain system and creek. Newly planted riparian vegetation would be planted at elevations where its root system would have access to the local water table. Given the small size of the Project Site, as well as the short duration of construction activity, the proposed Project would not interfere with groundwater recharge or management.

- c-i) **Less than Significant with Mitigation Incorporated.** The proposed Project would replace an existing storm drain system largely within the footprint of the existing system. This would not require installation of any new impervious surfaces, as pavement would only occur in areas presently paved.

In addition to replacing aging stormwater infrastructure, the proposed Project is proposed to reduce erosion within Cherry Creek. Presently, erosion is quickly progressing in lower Cherry Creek downstream of the storm drain under Sandra Road. This erosion has the potential to threaten Hayne Road and the utilities buried within it. Creek daylighting is intended to reduce the flow velocity of the creek to reduce further erosion. The proposed Project was designed to introduce a more natural creek structure containing suitable soils to promote surface flow and prevent sub-surface erosion and settlement.

Although the proposed Project would be beneficial in the long-term, excavation, grading, and vegetation removal could temporarily increase the rate of creekbed erosion during the six-month construction period. This possibility is relatively low due to the fact that construction would be carried out in the dry season. Rainfall would therefore be unlikely to cause creekbed erosion or off-site siltation. Nonetheless, construction best management practices as required by Mitigation Measure HYDRO-1 would further reduce the possibility of erosion and siltation within and downstream from the Project Site. Thus, the proposed Project would not alter drainage patterns in a way which would result in substantial erosion or siltation on- or off-site, and impacts would be less than significant with mitigation incorporated.

- c-ii) **No Impact.** The proposed Project would not create new sources of surface runoff or introduce impervious surfaces which would alter the rate of surface runoff. Storm drain replacement would generally be confined to the footprint of the existing system, and no new impervious surface would be needed. The newly replaced system would be more resilient to flooding and more capable of conveying flood flows than the current system,

which does not have adequate capacity to accommodate a 100-year or greater flooding event. Improved flood conveyance would be achieved by using higher capacity pipes made of more modern, upgraded materials relative to the existing system.

Additionally, creek daylighting activities were designed to avoid increasing risk of flooding at properties adjacent to Cherry Creek. Hydraulic modeling conducted during proposed Project design indicates that the 100-year flood surface elevation would slightly increase from baseline conditions, but would remain 15 feet below the top of bank. As such, adjacent properties would not experience increased flood risk. Furthermore, models suggest that there would be no increase in upstream or downstream flood risk.

As the proposed Project would improve flood conveyance by upgrading existing storm water infrastructure and was designed to avoid increasing flood risk to properties adjacent to Cherry Creek, the proposed Project would not substantially increase the rate or amount of surface runoff in a manner which would result in on- or off-site flooding; and no impact would occur.

- c-iii) ***Less than Significant Impact.*** The proposed Project would alter stormwater drainage systems in the Project Site, replacing existing pipes, trash racks, and headwalls. The existing infrastructure is at the end of its useful life and is at risk of failure during a major storm event. The proposed Project would therefore improve stormwater conveyance in the proposed Project vicinity by creating a more resilient, modern system capable of withstanding higher flows than the existing system. The proposed Project would not create any new sources of runoff water or polluted runoff, as it would not expand the system's footprint, replace pervious surfaces with impervious materials, or create a new source of pollution. Furthermore, the Project Site would be planted with riparian vegetation as part of creek daylighting efforts. Riparian vegetation performs an array of ecosystem services, including improving water quality.⁵⁵

In summary, the proposed Project would not create any new sources of runoff or introduce new impervious surfaces. It would enhance existing stormwater system's resilience to high-flow events and would restore native ecosystem which would positively impact water quality. As such, the proposed Project would not create or contribute runoff water in

⁵⁵ Department of Water Western Australian Government, "Aquatic and Riparian Vegetation," accessed July 11, 2019, <http://www.water.wa.gov.au/water-topics/waterways/values-of-our-waterways/aquatic-and-riparian-vegetation>.

excess of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. Thus, a less than significant impact would occur.

- c-iv) ***Less than Significant Impact.*** The proposed Project would not impede or redirect flood flows. As discussed in c-i through c-iii above, the Project would not add impervious surface or alter the overall geography or drainage of the site. The creek daylighting activities will take place within the creek bed, simply brining to the surface the flows that already occurring in the Project footprint. These activities will not alter the course of the creek or drainage patterns and will not impede or redirect flood flows.
- d) ***No Impact.*** The Project Site is not located within a 100-year floodplain⁵⁶, dam inundation zone⁵⁷, or tsunami inundation area.⁵⁸ The Project Site is approximately 1.1 miles northwest of Lower Crystal Springs Reservoir, the nearest waterbody where seiche is of potential concern. As the Project Site is not at risk of inundation during dam breach, tsunami, seiche, or a 100-year flood, the proposed Project would not risk pollutant release due to Project inundation. Thus, no impact would occur.

⁵⁶ Association of Bay Area Governments and Federal Emergency Management Agency, "Bay Area Hazards."

⁵⁷ City of Hillsborough, "General Plan | Hillsborough, CA - Official Website."

⁵⁸ Association of Bay Area Governments and California Geological Survey, "Bay Area Hazards."

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4.11 Land Use and Planning

LAND USE AND PLANNING – Would the proposed Project:	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>	<i>Source</i>
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1
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"/>	1,2

Environmental Setting

The Project Site is located in the Town of Hillsborough in San Mateo County, California. The entire Town, including the Project Site, is zoned as a Residential District⁵⁹. The Project Site also has a land use designation of residential per the Town's General Plan⁶⁰. The residential land use designation allows for development of single-family homes and compatible uses identified in the Zoning Ordinance.

Accordingly, much of the Project Site's surroundings are residential, with single-family homes to the north and west of the Project Site. Immediately to the south and east, the Project Site is abutted by undeveloped area mainly comprised of riparian vegetation and Cherry Creek. On the other side of Cherry Creek, the Project Site is neighbored on the south and east by single-family residences. The primary land use documents and regulations with jurisdiction over the Project Site are the Town's General Plan and zoning ordinance. There are no Habitat Conservation Plans (HCPs) or Natural Community Conservation Plans (NCCPs) applicable to the proposed Project. The following provisions of the Town's General Plan and Zoning Ordinance are designed to avoid or mitigate environmental impacts and are relevant to the proposed Project:

Town of Hillsborough General Plan

Policy LU-4.9: Continue to promote energy conservation and recycling by the public and private sectors to reduce overall energy use and maintain at least a 50 percent diversion of solid waste from the landfill.

⁵⁹ Town of Hillsborough, "[Code of Ordinances | Hillsborough, CA | Municode Library," February 28, 2018, https://library.municode.com/ca/hillsborough/codes/code_of_ordinances?nodeId=16404.

⁶⁰ City of Hillsborough, "General Plan | Hillsborough, CA - Official Website."

Action LU-4.5: The Town will continue to implement the Recycling of Construction and Demolition Ordinance to minimize the amount of construction debris disposed of in the landfill.

Policy C-1.1: Maintain public roadways in good condition to minimize the potential for automobile accidents and reduce wear and tear on vehicles.

Policy C-1.3: Provide for adequate sight distance at all intersections and driveways where feasible, including areas experiencing high parking rates due to construction Projects and events.

Policy OSC-3.1: Continue to encourage the preservation of drainage water courses and riparian habitat in a natural state by not allowing the culverting of existing creeks and requiring appropriate set backs and buffers from creekbeds [sic].

Policy OSC-3.2: Preserve and enhance valued riparian habitat and other important areas that provide important water quality benefits, such as watersheds.

Policy OSC-3.3: Continue to preserve and protect valuable native tree life, such as redwoods, oaks and bays, while recognizing the need to allow for the gradual replacement of trees to provide for on-going natural renewal.

Policy OSC-3.4: Enforce the Tree Removal Ordinance and require development proposals to provide adequate information to all Town staff to assess the proposed Project's impact on tree removal.

Policy OSC-3.7: Encourage the removal of non-native tree species, such as eucalyptus and acacia trees, that increase hazards for the community. Removed non-native trees should be replaced with native trees.

Policy OSC-3.11: Preserve and protect rare and endangered species, and their habitats.

Policy OSC-3.12: When appropriate, require proponents of Projects to complete biological surveys necessary to ensure compliance with all local, regional, State and federal regulations in regards to biological resources. When negative impacts to biological resources are unavoidable, mitigation measures, such as conservation easements, will be required to reduce them.

Action OSC-3.1: The Town will update the Tree Removal Ordinance to recognize the need to allow for a system of gradual replacement of important trees as they age to ensure that there is a mixture of healthy trees in the community and that there is not a period during which all of the trees die of old age at the same time. The Ordinance will also be updated to ensure that replacement of trees permitted for removal occurs in a manner that maintains the existing character, such as requiring either large-sized replacement trees or a greater number of smaller-sized trees. The location of replacement trees will also be considered as part of the Ordinance update to ensure that as the trees grow, their impact on existing private views is minimized. The Ordinance update will include language that addresses potential damage associated with changes in drainage patterns or impacts on root system of existing trees to remain on site resulting from new development. Finally, consideration to the need to balance the protection of trees with the need to manage vegetated areas in a manner that reduces the risk of fire to structures will be given during the Ordinance update.

Policy OSC-4.1: Control and monitor development and activities along the creeks to avoid negative impacts from urban uses on water quality and habitat preservation and enhancement, as well as to protect the public health and safety of public and private property.

Policy OSC-4.3: Protect drainage facilities, including ensuring creekbank stability, to avoid negative impacts to downstream hydrology.

Policy OSC-4.4: Require Projects to reduce, to the extent feasible, potential sediment discharge, erosion, run-off flow and volume, and stormwater pollution, but during construction, as well as post-construction. Require Projects to incorporate mitigation measures, such as Best Management Practices (BMPs), to address these water quality impacts, especially if proposing construction during the wet season.

Policy OSC-4.5: Reduce the amount of hazardous wastes entering into the local and regional waterways by:

Prohibiting the illicit dumping of wastes into storm drains, creeks and other waterways.

Prohibiting the discharge of pollutants to the maximum extent practicable.

Encouraging the use of naturally pest-resistant landscaping and design features that reduce the need for chemical treatments, and incorporate stormwater detention and retention into their design, when appropriate.

Action OSC-4.1: The Town will adopt and implement a Creek Protection Ordinance to ensure that new development does not have a negative impact upon the hydrology and riparian habitat of existing creeks and streams as well as to protect the health of the watersheds, consistent with the goals and policies contained in this Element.

Action OSC-4.2: As co-permittee, the Town will continue to participate in the San Mateo Stormwater Pollution Prevention Program (STOPPP) or equal program. New development and Town activities will be reviewed for compliance with STOPPP as part of Project approval. The Town will also monitor construction to ensure compliance with any required mitigation.

Action OSC-5.2: The Town will require Projects subject to the California Environmental Quality Act to analyze impacts to cultural resources per State law. When necessary, the Town will require the proposed Projects to incorporate mitigation measures to reduce adverse impacts to identified cultural resources.

Action OSC-5.3: The Town will require construction Projects to stop if archaeological or paleontological resources are uncovered during grading or other on-site excavation activities. Once the resources are assessed for importance, appropriate mitigation compliant with State law will be determined.

Policy PS-2.2: Reduce the risk of impacts from geologic and seismic hazards by applying proper development engineering, building construction and retrofitting requirements.

Action PS-4.2: The Town will continue to enforce existing ordinances for floodplain regulations, drainage requirements and development standards.

Policy PS-5.3: Cooperate and participate in regional air quality management planning, programs and enforcement measures.

Action PS-5.2: The Town will continue to support the Bay Area Air Quality Management District in monitoring air pollutants of concern on a continuous basis, as well as the implementation of the regional Clean Air Plan.

Policy N-1.3: Continue to enforce local and State noise regulations to minimize noise impacts associated with construction and public and private activities.

Action N-1.2: The Town will continue to enforce the existing Noise Ordinance, Response to Unruly Gatherings Ordinance and Toy Ordinances.

Discussion of Impacts

- a) ***No Impact.*** The Project Site is in a residential community in the Town of Hillsborough. The Project Site is centered around Cherry Creek, an existing creek with steep banks and riparian vegetation along its perimeter. The segment of Cherry Creek in question runs along the intersection of Sandra Road and Hayne Road. Several detached single family residences on approximately half-acre parcels are present along Sandra Road, Hayne Road, and adjacent Robinwood Lane.

Although the proposed Project would occur in an existing residential community, it would not create any new barriers to movement within the community. An existing storm drain would be replaced and a segment of Cherry Creek would be restored. No new structures would be erected and no road closures would be required. As the proposed Project would not introduce any barriers to movement within the adjacent residential community, the proposed Project would not divide an existing community, and no impact would occur.

- b) ***Less than Significant Impact.*** When assessing a Project's impacts related to consistency with land use policies and plans, general consistency with the intent and spirit of such plans should be considered. Inconsistency with a single policy does not itself present a significant impact if the proposed Project would be generally consistent with applicable land use policies and regulations. The proposed Project would have minor inconsistencies with land use policies such as general plan policies calling for protection of oak trees but is generally consistent with the general plan, and supports policies of restoring riparian habitat and repairing storm water infrastructure. As there are no major conflicts with the Town of Hillsborough General Plan and the proposed Project would support some of the plan's objectives and policies adopted for the purposes of avoiding an environmental impact, the proposed Project would not result in a significant environmental impact due to conflict with an applicable land use plan, and a less than significant impact would occur.

4.12 Mineral Resources

MINERAL RESOURCES — Would the proposed Project:	Potentially Significant Impact	Less Significant Mitigation Incorporated than with	Less than Significant Impact	No Impact	Source
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1,17
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1,17

Environmental Setting

The Project Site is located in a residential, mostly built-out area in the Town of Hillsborough. There are no known mineral resources on or near the Project Site documented in the California Department of Conservation's Mines Online database⁶¹, nor are there any mineral resource recovery sites listed in or protected by the Town of Hillsborough General Plan⁶².

Discussion of Impacts

- a, b) **No Impact.** There are no known mineral resource recovery sites within or near the Project Site, as documented by the State of California and the Town of Hillsborough. As there are no important mineral resources in the Project Site, the proposed Project would not result in the loss of availability of a mineral resource recovery site of local or statewide importance; thus, there would be no impact.

⁶¹ California Department of Conservation, "Mines Online," 2016, <https://maps.conservation.ca.gov/mol/index.html>.

⁶² City of Hillsborough, "General Plan | Hillsborough, CA - Official Website."

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4.13 Noise

NOISE — Would the proposed Project result in:	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>	<i>Source</i>
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the proposed Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,2,3
b) Generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1
c) For a Project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport of public use airport, would the proposed Project expose people residing or working in the proposed Project Site to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,2

Environmental Setting

Basics of Noise

Sound is described in terms of loudness and pitch. The standard unit for measuring loudness is the decibel (dB), which is quantified on a logarithmic scale. The human ear is not equally sensitive to a given sound level at all pitches. A special pitch-dependent rating scale has been devised to relate noise to human sensitivity. The A-weighted decibel scale (dBA) provides this compensation by approximating the sensitivity of the human ear.

Noise is typically defined as unwanted sound. A typical noise environment consists of a base of steady background noise from many distant and indistinguishable noise sources. Superimposed on this background noise is sound from individual local sources, which may be intermittent or continuous. Several rating scales have been developed to analyze the adverse effect of noise on people. Since environmental noise fluctuates over time, these scales consider that the effect of noise upon people is dependent on the energy of noise itself as well as time of day. Noise scales that are applicable to this analysis are as follows:

- L_{eq} – An L_{eq} , or equivalent energy noise level, is the average acoustic energy content of noise for a stated period of time. The L_{eq} of a time-varying noise and that of a steady noise are the same if they deliver the same acoustic energy to the ear during exposure. For evaluating community impacts, this rating scale does not vary, regardless of whether the noise occurs during the day or the night.

- CNEL – The Community Noise Equivalent Level is a 24-hour average L_{eq} with a 5 dBA “weighting” during the hours of 7:00 P.M. to 10:00 P.M. and a 10 dBA “weighting” added to noise during the hours of 10:00 P.M. to 7:00 A.M. to account for noise sensitivity in the evening and nighttime, respectively. The logarithmic effect of these additions is that a 60 dBA 24 hour L_{eq} would result in a measurement of 66.7 dBA CNEL.

For residential uses, environmental noise levels are generally considered low when the CNEL is below 60 dBA, moderate in the 60–70 dBA range, and high above 70 dBA.⁶³ Noise levels greater than 85 dBA can cause temporary or permanent hearing loss. Examples of low daytime levels are isolated, natural settings with noise levels as low as 20 dBA and quiet suburban residential streets with noise levels around 40 dBA. Noise levels above 45 dBA at night can disrupt sleep. Examples of moderate level noise environments are urban residential or semi-commercial areas (typically 55–60 dBA) and commercial locations (typically 60 dBA). People may consider louder environments adverse, but most will accept the higher levels associated with more noisy urban residential or residential-commercial areas (60–75 dBA) or dense urban or industrial areas (65–80 dBA).

It is widely accepted that in the community noise environment the average healthy ear can barely perceive CNEL noise level changes of 3 dBA. CNEL changes from 3 to 5 dBA may be noticed by some individuals who are extremely sensitive to changes in noise. A 5 dBA CNEL increase is readily noticeable, while the human ear perceives a 10 dBA CNEL increase as a doubling of sound.

Noise levels from a particular source generally decline as distance to the receptor increases. Other factors, such as the weather and reflecting or barriers, also help intensify or reduce the noise level at any given location. A commonly used rule of thumb for roadway noise is that for every doubling of distance from the source, the noise level is reduced by about 3 dBA at acoustically “hard” locations (i.e., the area between the noise source and the receptor is nearly complete asphalt, concrete, hard-packed soil, or other solid materials) and 4.5 dBA at acoustically “soft” locations (i.e., the area between the source and receptor is normal earth or has vegetation, including grass). Noise from stationary or point sources is reduced by about 6 to 7.5 dBA for

⁶³ *Office of Planning and Research, State of California General Plan Guidelines, October 2003 (in coordination with the California Department of Health Services).*

every doubling of distance at acoustically hard and soft locations, respectively. Noise levels are also generally reduced by 1 dBA for each 1,000 feet of distance due to air absorption. Noise levels may also be reduced by intervening structures – generally, a single row of buildings between the receptor and the noise source reduces the noise level by about 5 dBA, while a solid wall or berm reduces noise levels by 5 to 10 dBA. The normal noise attenuation within residential structures with open windows is about 17 dBA, while the noise attenuation with closed windows is about 25 dBA.⁶⁴

Noise Environment

Hillsborough is a relatively quiet residential community. Primary sources of noise include vehicular traffic on major roadways and aircraft traffic from San Francisco International Airport (SFO). According to the Town's General Plan, the most common source of noise complaints is construction, typically associated with construction activities beginning early in the morning or continuing late into the evening, trucks idling, or radios operating at loud volumes.

SFO is approximately 3.8 miles north of the Project Site. SFO's Noise Exposure Maps depict noise contours emanating from the airport up to 65 dB CNEL. The Project Site is outside of the 65 dB CNEL contours depicted in the 2019 Noise Exposure Maps⁶⁵ and away from typical arrival and departure routes into and out of SFO. As such, aircraft noise from SFO affecting the Project Site is mostly limited to short-term events such as engine run-up during maintenance and departures on Runway 19 during storm conditions.⁶⁶

Hayne Road is highlighted in the Town's General Plan Noise Element as a major thoroughfare with potential for traffic-related noise. The Project Site is located within its 65 dB CNEL contour based on 2004 Projections of noise in the year 2025.

Construction noise is not permitted in the Town of Hillsborough on Sundays or holidays. Monday through Friday from 8:00 a.m. to 5:00 p.m., construction noise is permitted to reach a maximum

⁶⁴ *National Cooperative Highway Research Program Report 117, Highway Noise: A Design Guide for Highway Engineers, 1971.*

⁶⁵ "Noise Exposure Map Report | San Francisco International Airport," FlySFO | San Francisco International Airport, accessed June 25, 2019, <https://www.flysfo.com/community/noise-abatement/sfo-part-150-study/noise-exposure-map-report>.

⁶⁶ *City of Hillsborough, "General Plan | Hillsborough, CA - Official Website."*

level of 100 dBA from all sources combined, as measured 25 feet from the receiving property line.⁶⁷ No construction noise is permitted on Saturdays, Sundays, or holidays.

Discussion of Impacts

- a) ***Less than Significant with Mitigation Incorporated.*** In the long term, the proposed Project would not generate any noise. Storm drain replacement and creek restoration would enhance existing infrastructure and habitat and would not introduce any new noise-generating land uses.

During construction, the proposed Project would require the use of motorized equipment such as an excavator, dump truck, steel wheel roller, and vibrating plate compactor or rammer. Use of this equipment would occur on weekdays between 8 a.m. and 5 p.m., The Town of Hillsborough Noise Ordinance allows construction noise up to 100 dBA as measured 25 feet from the property line, inclusive of all sources operating at any given time. According to the Federal Highway Administration, dump trucks, excavators, and steel wheel rollers each generate a maximum noise level of approximately 85 dBA as measured 50 feet away.⁶⁸ Although individual pieces of construction equipment would not generate noise in excess of the Noise Ordinance standard of 100 dBA, multiple tools operating at the same time could exceed established noise standards. To minimize construction-related noise, Mitigation Measure NOISE-1 requires use of proper muffling equipment and prohibits unnecessary vehicle idling, among other noise-reducing procedures. With implementation of this measure, the proposed Project would not result in a substantial temporary or permanent increase in ambient noise in excess of established standards; and impacts would be less than significant with mitigation incorporated.

Mitigation Measure NOISE-1:

The Contractor shall implement the following noise Best Management Practices throughout the duration of construction:

- Construction hours shall be clearly posted on a sign at the entrance to the construction site;
- Residences adjacent to the construction site shall be notified of construction in writing 72 hours prior to the start of construction;

⁶⁷ "Chapter 8.32 - NOISE | Code of Ordinances | Hillsborough, CA | Municode Library," accessed June 25, 2019, https://library.municode.com/ca/hillsborough/codes/code_of_ordinances?nodeId=TIT8HESA_CH8.32NO.

⁶⁸ Federal Highway Administration, "Construction Equipment Noise Levels and Ranges," in *Construction Noise Handbook*, 2017, https://www.fhwa.dot.gov/Environment/noise/construction_noise/handbook/handbook09.cfm.

- All equipment used on-site shall be muffled and maintained in good working condition. All internal combustion engine-drive equipment shall be fitted with mufflers in good condition;
- Unnecessary idling of internal combustion engines shall be prohibited and all equipment shall be turned off when not in use.

b) ***Less than Significant Impact.*** The newly replaced storm drain and restored creek would not produce any noise or vibration. The proposed Project would therefore not create any groundborne noise or vibration in the long-term. During construction, a vibrating plate compactor or rammer would be used to compact the edges of new and old asphalt. Although this would result in some groundborne noise and vibration, this would occur over a relatively short duration and small geographic area. Furthermore, construction would be limited to weekday, daytime hours, resulting in minimal disturbance to nearby residents. As the proposed Project would not generate groundborne noise or vibration in the long-term and would do so in limited quantities in the short-term, a less than significant impact would occur.

c) ***Less than Significant Impact.*** The nearest airports to the Project Site are San Carlos Airport and San Francisco International Airport. San Carlos Airport is a reliever airport for nearby San Francisco International Airport and has one runway intended to accommodate small aircraft. San Carlos Airport's sole runway is approximately 6.4 miles southeast of the Project Site. The Project Site is within Area A of the San Carlos' Airport's area of influence but is not within any noise contours designated by its airport land use compatibility plan.⁶⁹

The much larger and busier San Francisco International Airport's nearest runway is approximately 3.8 miles north of the Project Site. The Project Site is in Area A of San Francisco International's area of influence but is not within any of the noise contours depicted by San Francisco International Airport's 2019 noise exposure map prepared pursuant to the Federal Airport Safety and Noise Abatement Act of 1979.⁷⁰

Creek restoration and storm drain replacement would not result in any long-term noise in the vicinity of the Project Site. During construction, noise would predominately originate from the use of motorized equipment. Although this would expose people living near the Project Site to a temporary increase in ambient noise, airport noise in the vicinity of the site is negligible. As the Project Site experiences minimal airport noise, the proposed

⁶⁹ *Environmental Science Associates, "Comprehensive Airport Land Use Compatibility Plan for the Environs of San Carlos Airport."*

⁷⁰ *San Mateo County Planning and Building Department, BridgeNet International, and ESA Airports, 2019 Noise Exposure Map, August 13, 2015, August 13, 2015, https://media.flysfo.com/media/sfo/noise-abatement/sfo_p150_2019-nem-36x24-plot-signed_ada.pdf.*

Project would not expose people residing or working in the vicinity of the Project Site and near a public use airport or private airstrip to excessive noise levels, and a less than significant impact would occur.

4.14 Population and Housing

POPULATION AND HOUSING — Would the proposed Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact	Source
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1

Environmental Setting

The Project Site is located in the residential Town of Hillsborough. The Project Site is situated within a neighborhood comprised of detached single family residences. As of 2017, Hillsborough had a population of approximately 11,486 people. Housing stock and population in Hillsborough have remained relatively constant over the last few decades. On average, the Town has seen the construction of an average of 4.2 net new units annually since 1999. As of 2010, there were 3,693 housing units in Hillsborough, 95% of which were owner-occupied.⁷¹

Discussion of Impacts

- a) **No Impact.** The proposed Project would not affect population growth as no new jobs, businesses, homes, or other growth-inducing elements are proposed. The Project Site is situated in a built-out residential neighborhood with little opportunity for further development or population growth. A few temporary jobs would be created during construction but would likely be filled by contractors already local to the area. The proposed Project would replace existing stormwater infrastructure that is at the end of its life and would not expand capacity of the stormwater system. As no permanent jobs, housing, or other population growth-inducing elements are proposed and any temporary construction jobs would likely be filled locally, the proposed Project would not induce substantial population growth; and there would be less than significant impacts.

⁷¹ Baird + Driskell Community Planning, "Town of Hillsborough 2014 Housing Element Covering the Period 2014 - 2022," October 2014, <https://www.hillsborough.net/DocumentCenter/View/1339/2014-2022-Adopted-Housing-Element-October-13-2014?bidId=>.

- b) **No Impact.** The Project Site would not displace any housing or people. Project elements include storm drain replacement and creek daylighting, which would occur within a creek bed that is bordered on both sides by single-family housing. Adjacent housing would not be affected by the proposed Project, which was designed to minimize flood risk at adjacent residences. In fact, the existing culvert is at the end of its useful life and would likely be overwhelmed by a 100-year storm, which could result in flooding at adjacent residences. Culvert replacement would therefore improve the neighborhood's flood resilience and offer modest protections to existing housing and people. Further, the proposed Project does not contain any growth-inducing elements such as construction of new homes, roads, or employment centers, or expansion of facilities or services which could subsequently facilitate population growth. The proposed Project would therefore not induce any population growth which may result in displacement of existing people or housing. As the proposed Project would not displace any people or housing, there would be no impact.

4.15 Public Services

PUBLIC SERVICES — Would the proposed Project:					
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>	<i>Source</i>
i) Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1,2
ii) Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1,2
iii) Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1,2
iv) Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1,2
v) Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1,2

Environmental Setting

Fire

Fire services in the Town of Hillsborough are provided by Central County Fire Department, which serves Millbrae and Burlingame in addition to Hillsborough. The department has six engine companies, one truck company and one Battalion Chief on duty each day. The department also has Fire Prevention, Administrative, and training divisions. The nearest location of the Central County Fire Department is located at 835 Chateau Drive, a roughly a 1.3 mile drive from the Project Site. The 835 Chateau Drive station is staffed daily by no less than one captain, one fire fighter, one paramedic, and an engine.

San Mateo County takes a county-wide planning approach to assure adequate fire protection throughout the county's urban areas. According to the Town's General Plan, at least 39 stations are needed county-wide to provide an acceptable level of service. At the time the General Plan was authored, there were 56 stations operating across the county. There are seven stations in Hillsborough.⁷²

⁷² "Central County Fire Department | Fire Stations," accessed June 13, 2019, <http://www.ccfdonline.org/about-ccfd/fire-stations/>.

Fire fighters in San Mateo County are required to respond to calls in under seven minutes. Central County Fire Department has made it a goal to respond to all calls in less than five minutes. Its average response time at the time of General Plan adoption was between four minutes and 30 seconds and four minutes and 40 seconds.

Police

Police services for the Project Site are provided by the Hillsborough Police Department. The department has a staff of 32 people, 24 of which are police officers. The department is headquartered at 1600 Floribunda Avenue, approximately 1.8 miles northeast of the Project Site. According to the Town's General Plan, primary law enforcement issues in Hillsborough includes traffic accidents, crime, and noise complaints. As of 2004, there were 3.4 police officers for every 3,400 residents.

Schools

The Project Site is within the jurisdiction of the Hillsborough Elementary School District and the San Mateo Union High School District. The Project Site is served by Aragon High School, Crocker Middle School, and West Hillsborough Elementary School.^{73,74}

Parks

The Town of Hillsborough has three parks, Centennial Park, Vista Park, and Crossroads Park. Crossroads park is the closest, at approximately 0.62 miles east of the Project Site. In addition to these three parks, the Town manages 259 acres of protected open space, which is intended to be preserved in its natural state and is not open to the public.⁷⁵

Discussion of Impacts

ai-v) **No Impact.** The proposed Project would not involve the construction of any additional housing, infrastructure, or employment centers that may induce population growth. There would therefore not be any permanent increase in demand by the general public for fire protection, police protection, schools, parks, or other public facilities. There could be a temporary, minimal increase in demand for fire or police services to accommodate construction activities. Any such increase would be limited to the six-month construction period and would be insufficient in scope and duration to necessitate new facilities. As no fire or police protection, school, park, or other public facilities are proposed and no increase in the need for such facilities would occur, there would be no impact.

⁷³ "Hillsborough City School District: Schools," accessed June 25, 2019, <https://www.hcsd.k12.ca.us/page.cfm?p=499>.

⁷⁴ "San Mateo Union High School District / Homepage," accessed June 25, 2019, <https://www.smuhsd.org/Page/1>.

⁷⁵ "Parks | Hillsborough, CA - Official Website," accessed June 25, 2019, <https://www.hillsborough.net/210/Parks>.

4.16 Recreation

RECREATION — Would the proposed Project:	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>	<i>Source</i>
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1
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 type="checkbox"/>	<input checked="" type="checkbox"/>	1

Environmental Setting

There are no recreational amenities or publicly available open spaces within or near the Project Site. The nearest such facility is Crossroads park, which is approximately 0.62 miles from the Project Site. There are two other parks in the Town of Hillsborough, Centennial Park and Vista Park. In addition to these three parks, the Town manages 259 acres of protected open space, which is intended to be preserved in its natural state and is not open to the public⁷⁶. Public recreational facilities in Hillsborough total approximately two acres in area. The Town aims to provide three additional acres of parkland for every 1,000 new residents, creating a need for approximately 1.44 acres of parkland to meet future demand.

Discussion of Impacts

- a,b) **No Impact.** The proposed Project would not involve construction or expansion of any additional housing, infrastructure, or businesses that would induce population growth and increase demand for recreational facilities in Hillsborough. The Project Site is not open to the general public for recreational activities and although undeveloped, is unsuitable for recreational purposes due to its steep slopes. The proposed Project would therefore not affect existing recreational facilities or create demand for new or expanded recreational facilities. As the proposed Project would not increase demand for recreational opportunities or increase the use of any existing recreational facilities, the proposed Project would not induce deterioration of existing recreational facilities or require the construction or expansion of new facilities, and there would be no impact.

⁷⁶ "Parks | Hillsborough, CA - Official Website."

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4.17 Transportation

TRANSPORTATION — Would the proposed Project:	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>	<i>Source</i>
a) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,2,6
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"/>	1
c) Substantially increase hazards due to a geometric design feature (e.g. sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1
d) Result in inadequate emergency access?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1

Environmental Setting

The Town of Hillsborough's transportation system is mostly characterized by narrow streets with a limited shoulder which do not have bicycle lanes, on-street parking, or sidewalks. This is true of all roadways in the immediate vicinity of the Project Site, which include Sandra Road, Hayne Road, and Robinwood Lane.

The nearest bicycle facilities to the Project Site are a dedicated bike lane on Skyline Boulevard and a designated bicycle-friendly segment of Hayne Road. Both of these facilities terminate at the intersection of Hayne Road, Skyline Boulevard, and Black Mountain Road, an approximate 0.7 mile drive southwest from the Project Site. There are no public transit facilities located within the Town of Hillsborough and pedestrian facilities are mostly absent.

Construction equipment for the proposed Project would be staged at 1650 Marlborough Road, 1116 Tournament Drive, and the Caltrans Park and Ride Lot at the intersection of Golf Course Drive and Skyline Boulevard. The 1650 Marlborough staging facility is approximately 0.8 to 1.2 miles from the Project Site and requires the use of Black Mountain Road, Marlborough Road, and either Denise Drive or Hayne Road. The 1116 Tournament Drive site is approximately 4.5 miles from the Project Site, and would access the site via Tournament Drive, Bel Aire Road, Skyline Boulevard, and Hayne Road. Equipment staged at the Caltrans lot would access the site via Hayne Road, an approximate 0.9 mile drive.

Streets in Hillsborough are classified as arterials, collectors, and local streets. Skyline Boulevard is a minor arterial, which is intended to primarily serve through-traffic, with access to adjacent properties as a secondary objective. Hayne Road and Black Mountain Road are collectors, which

connect local streets to arterials. All other roads which would be used for Project Site access from staging areas are considered local roads.⁷⁷

Discussion of Impacts

- a,d) ***Less than Significant with Mitigation Incorporated.*** The primary plans and ordinances addressing the circulation system in Hillsborough are the General Plan Circulation Element and Title 10 of the Town Code. Relevant policies from the Circulation Element include requirements to maintain adequate sight distance at intersections experiencing increased parking rates due to construction (Policy C-1.3) and to maintain adequate emergency access (Policy C-1.5).

Mitigation Measure HAZ-2 (Section 4.9) requires preparation of a parking plan and coordination with emergency service providers, both of which would facilitate consistency with Policies C-1.3 and C-1.5 during construction. No long-term impacts to transportation policies or emergency access would occur, as the proposed Project would not physically alter roadways or increase their usage. As such no long-term impact would occur and short-term impacts would be mitigated to less than significant levels, the proposed Project would not conflict with a plan, policy, or program addressing the circulation system or result in inadequate emergency access. Impacts would therefore be less than significant with mitigation incorporated.

- b) ***Less than Significant Impact.*** CEQA Guidelines Section 15064.3(b) provides considerations for a lead agency evaluating a project's transportation impacts, dictating that vehicle miles traveled (VMT) is generally the most appropriate measure of transportation impacts and that a qualitative analysis of construction VMT is often most appropriate. Section 15064.3(b) further stipulates that a Project's effects on automobile delay do not constitute significant environmental impacts.

The proposed Project would have no long-term effects on VMT. The replacement storm drain would require slightly less maintenance than the current system due to its improved trash racks, and the restored creek would not require any maintenance. The proposed Project would not create any new roads or introduce any new uses such as recreational, retail, or residential facilities which might induce additional driving. Furthermore, the proposed Project would not have any impact on existing roadways or transit facilities. As such, no permanent change in VMT would result.

During construction, material hauling, worker transportation, and movement of equipment to and from the Project Site would temporarily increase VMT. Trench excavation and creek daylighting would collectively require approximately 1,590 cubic yards of soil export

⁷⁷ City of Hillsborough, "General Plan | Hillsborough, CA - Official Website."

and 870 cubic yards of import. Soils being exported for disposal would travel approximately 28.7 miles from the site to the transfer center and then the landfill. Construction equipment would be staged at three off-site locations which are approximately 0.9, 1.2, and 4.5 miles driving from the Project Site. Excess VMT associated with movement of equipment and materials would be temporary and would terminate upon completion of construction. Given the temporary, minimal nature of construction-related VMT and the lack of permanent increase in VMT, the proposed Project would not conflict with CEQA Guidelines Section 15064.3(b), and a less than significant impact would occur.

- c) ***Less than Significant Impact.*** The proposed Project would not involve any physical modifications to roadways which would introduce design hazards. Furthermore, the proposed Project would not facilitate any population growth or changes in land use which would introduce incompatible uses. During construction, heavy equipment would be transported to and from the Project Site using area roadways. This would be temporary and would be carried out by an experienced contractor, minimizing the likelihood of hazards from incompatible uses. As such, the proposed Project would not increase hazards due to a design feature or incompatible uses, and a less than significant impact would occur.

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4.18 Tribal Cultural Resources

TRIBAL CULTURAL RESOURCES — Would the proposed 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>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>	<i>Source</i>
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"/>	1,10
ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resources Code section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,10

Environmental Setting

The Native American Heritage Commission (NAHC) was contacted via email on July 8, 2019 to request a review of the Sacred Lands file for information on Native American cultural resources in the study area and to request a list of Native American contacts in the vicinity of the Project Site. In the response dated July 12, 2019, the NAHC indicated there were no known Sacred Sites in the immediate Project Site or nearby surroundings. The response letter identified five Native American individuals/organizations that may have knowledge of cultural resources within the Project Site. On July 15, 2019, all individuals on that list were contact by Pacific Legacy via certified letter. The letter requested any information that those potential stakeholders might have regarding Native American cultural resources within or near the subject parcel. Letters of inquiry were sent to Irene Zwierlein (Chairperson) of the Amah Mutsun Tribal Band of Mission San Juan Bautista; Tony Cerda, (Chairperson) of the Costanoan Rumsen Carmel Tribe; Ann Marie Sayers (Chairperson) of the Indian Canyon Mutsun Band of Costanoan; Monica Arellano of the Muwekma Ohlone Indian Tribe of the San Francisco Bay Area; and Andrew Galvan of The Ohlone Indian Tribe.

One response was received from Ann Marie Sayers, Chairperson of the Indian Canyon Mutsun Band of Costanoan. Ms. Sayers requested a digital copy of the consultation letter and map. Shanna Streich, MA sent her the requested documents on August 20, 2019. No further responses from potential Native American stakeholders were received regarding the Project.

Regulatory Setting

Assembly Bill 52

In September 2014, the California Legislature passed Assembly Bill (“AB”) 52, which added provisions to the Public Resources Code (“PRC”) concerning the evaluation of impacts on tribal cultural resources under CEQA, and consultation requirements with California Native American tribes. In particular, AB 52 now requires lead agencies to analyze a project’s impacts on “tribal cultural resources,” separately from archaeological resources (PRC Section 21074; 21083.09). Under AB 52, “tribal cultural resources” include “sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe” that are either (1) listed, or determined to be eligible for listing, on the state or local register of historic resources; or (2) a resource that the lead agency chooses, in its discretion, to treat as a tribal cultural resource (PRC Section 21074).

AB 52 also requires lead agencies to engage in additional consultation procedures with respect to California Native American tribes (PRC Sections 21080.3.1, 21080.3.2, 21082.3). If a project may have a significant impact on a tribal cultural resource, the lead agency’s environmental document must discuss (1) whether the proposed project has a significant impact on an identified tribal cultural resource and (2) whether feasible alternatives or mitigation measures avoid or substantially less the impact on the identified tribal cultural resource (PRC Section 21082.3(b)). Finally, AB 52 required the Office of Planning and Research to update Appendix G of the CEQA Guidelines by July 1, 2016 to provide sample questions regarding impacts to tribal cultural resources (PRC Section 21083.09). AB 52’s provisions apply to projects that have a notice of preparation filed on or after July 1, 2015.

California Register of Historical Resources

Criteria for important historical resources on the California Register or historic properties on the National Register are as follows:

1. Is associated with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California.
2. Is associated with the lives of persons important to local, California history.
3. Embodies the distinctive characteristics of a type, period, region or method of construction, or represents the work of a master or possess high artistic values.
4. Has yielded, or may be likely to yield, information important to the pre-history or history of the local area or California.

Discussion of Impacts

- a-i,ii) ***Less than Significant with Mitigation Incorporated.*** Review of historic registers and inventories indicate that no historical resources are present in the project area. No state, local, or National Register-listed or eligible properties are located within the Project Site. Review of the Sacred Lands file by the NAHC failed to indicate the presence of known resources within the Project Site, and no tribal consultation was requested by tribes with interest in or knowledge of the Project Site.

While there is some potential to uncover resources that are currently buried in the course of proposed Project activities, per Public Resources Code 5097.98 and Health and Human Safety Code 7050.5, if human remains are encountered, excavation or disturbance of the location shall be halted in the vicinity of the find, and the County Coroner contacted. If the Coroner determines the remains are Native American, the Coroner shall contact the Native American Heritage Commission, who shall identify the person or persons believed to be most likely descended from the deceased Native American in order to provide guidance on handling the remains.

Implementation of Mitigation Measures CULT-1 and CULT-2 (Section 4.5), along with compliance with State law, would ensure that impacts to any unknown or buried tribal cultural resources remain less than significant.

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4.19 Utilities and Service Systems

UTILITIES AND SERVICE SYSTEMS — Would the proposed Project:	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>	<i>Source</i>
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"/>	1
b) Have sufficient water supplies available to serve the proposed 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"/>	1
c) Result in a determination by the wastewater treatment provider which serves or may serve the proposed Project that it has adequate capacity to serve the proposed Project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,2,3
e) Comply with federal, State, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,2,3

Environmental Setting

Water for the Town of Hillsborough is provided by the San Francisco Public Utilities Commission (Utilities Commission), which sources its water from Hetch Hetchy Reservoir (85%) and local watersheds in Alameda and Santa Clara Counties (15%). All regional water sources used by the Utilities Commission have a collective capacity of approximately 899,460 acre-feet.

The Town has a wastewater management system with 116 miles of sewer pipe and four pump stations. The system has an average daily flow of approximately 462 acre feet to the San Mateo Water Treatment Plant and 376 acre feet to the Burlingame Waste Water Treatment Plant. This accounts for 6% and 10% of each plant's daily flow, respectively.

The Town of Hillsborough is a member of the South Bayside Waste Management Authority (Waste Management Authority), which owns the Shoreway Environmental Center. All solid waste from the Town is transported to the Shoreway Environmental Center, where it is transferred and sorted. Solid waste is subsequently disposed of at the Ox Mountain Landfill in Half Moon Bay.

As of December 31, 2015, Ox Mountain had approximately 22,180,000 cubic yards of remaining capacity, with a projected closure date of January 1, 2034.⁷⁸ As of 2008, the Town of Hillsborough was disposing of approximately 4,597 tons of solid waste in the landfill annually.⁷⁹

The Town requires applicants for a demolition or building permit to develop and execute a Waste Reduction and Recycling Plan to facilitate the recycling and reuse of construction and demolition materials.⁸⁰ Per the Town's Waste Reduction Ordinance, these plans must be developed prior to issuance of a building or demolition permit and typically require the Permittee to maintain records of waste diversion and compliance throughout the construction process.⁸¹

Discussion of Impacts

- a) **Less than Significant Impact.** The proposed Project would not require the relocation or construction of new or expanded water supply or distribution, wastewater treatment, electric power, natural gas, or telecommunications facilities. The proposed Project would not increase demand for or alter any of the aforementioned utilities. As such, the expansion, construction, or relocation of these facilities would not result in significant environmental effects.
- b) **Less than Significant Impact.** The proposed Project may create a localized, temporary increase in water use during construction, as water may be necessary for equipment maintenance and other construction procedures. This would be limited to the construction period, which is scheduled to occur over a span of roughly six months. Any local increase in water use would be negligible relative to the Utilities Commission's overall annual water supply of approximately 899,460 acre-feet. In the long-term, the daylighted creek and replaced storm drain would convey water but would not require any manual water input. As the proposed Project's impact on water use would be temporary and small, there would be sufficient water supplies available to serve the proposed Project and reasonably foreseeable future development during normal, dry, and multiple dry years. Accordingly, a less than significant impact would occur.

⁷⁸ CalRecycle, "SWIS Facility Detail," accessed June 26, 2019, <https://www2.calrecycle.ca.gov/SWFacilities/Directory/41-AA-0002/Detail>.

⁷⁹ Town of Hillsborough, "Town of Hillsborough Climate Action Plan," February 2010, <https://www.hillsborough.net/DocumentCenter/View/606/2010-Climate-Action-Plan?bidId=>.

⁸⁰ "Rethink Waste | C & D Recycling," accessed June 26, 2019, <https://www.rethinkwaste.org/businesses/construction-demolition-recycling>.

⁸¹ "Chapter 15.18 - RECYCLING OF CONSTRUCTION AND DEMOLITION DEBRIS | Code of Ordinances | Hillsborough, CA | Municode Library," 18, accessed June 26, 2019, https://library.municode.com/ca/hillsborough/codes/code_of_ordinances?nodeId=TIT15BUCO_CH15.18RECODEDE.

- c) **No Impact.** The proposed Project would not expand any human-serving land uses such as recreation, retail, or residences or introduce any new infrastructure that would facilitate the later expansion of such uses. The proposed Project would therefore not be growth-inducing and would not create a need for additional wastewater treatment capacity. The proposed Project would involve creek restoration and storm drain replacement, and would modify the capacity of any wastewater treatment systems. Furthermore, the proposed Project would replace a storm drain system that in its present state could be overwhelmed during a large storm and adversely affect nearby utilities such as wastewater systems. As the proposed Project would not create any new demand or indirectly affect wastewater treatment systems, the wastewater treatment provider would have adequate capacity to serve the proposed Project's projected demand in addition to the provider's existing commitments, and no impact would occur.
- d) **Less than Significant Impact.** The proposed Project would not generate solid waste in the long-term but would do so during construction. Trench excavation would create approximately 1,400 cubic yards of material, approximately 700 cubic yards of which would be exported and disposed of off-site. An additional 890 cubic yards would be created by creek daylighting. This would also be disposed of off-site. Additionally, approximately 24 trees would be removed within the Project Site. These would be chipped and disposed of off-site. Solid waste generated during construction would be negligible relative to the local landfill's remaining capacity, which as of 2015 was at approximately 22,180,000 cubic yards and was projected to be sufficient through the end of 2033. The Town presently disposes of approximately 4,597 tons of solid waste annually.⁸²
- Given that the proposed Project would generate solid waste on a temporary basis and that this temporary generation of solid waste would be small relative to the Town's solid waste disposal capacity, the proposed Project would not generate solid waste in excess of local capacity. Furthermore, the small and temporary nature of solid waste generation associated with the proposed Project ensure that the proposed Project would not impair solid waste reduction goals. Therefore, a less than significant impact would occur.
- e) **Less than Significant with Mitigation Incorporated.** No Federal solid waste reduction statutes applicable to the proposed Project were identified. The United States

⁸² Town of Hillsborough, "Town of Hillsborough Climate Action Plan."

Environmental Protection Agency encourages solid waste reduction, but does not impose any substantive requirements. The State of California has a goal of 75% recycling, composting, or source reduction of solid waste by 2020, which is to be attained using a statewide approach. Per Chapter 15 of its Municipal Code, the Town of Hillsborough requires waste reduction during construction.⁸³ Mitigation Measure UTILITIES-1 requires compliance with the waste reduction provisions of Chapter 15 of the Hillsborough Municipal Code. With this measure, the proposed Project would comply with State and local requirements to reduce solid waste. Following construction, the proposed Project would not generate any solid waste. As there would be no long-term impact and short-term impacts would be mitigated through compliance with the Hillsborough Municipal Code, the proposed Project would comply with all applicable Federal, State, and local waste reduction requirements, and impacts would be less than significant with mitigation incorporated.

Mitigation Measure UTILITIES-1:

Prior to issuance of a grading permit, the Applicant shall submit a waste reduction plan to the Town of Hillsborough's Planning and Building Department. The Contractor shall comply with the waste reduction plan throughout the construction process.

The waste reduction plan shall include a requirement that the Contractor collect and retain weight tickets, an inventory of reused items, receipts and records from all recipients of discarded material, and any other applicable documentation to establish compliance with waste reduction requirements as established by the plan. Prior to final inspection of the proposed Project, the Applicant shall complete a diversion summary sheet for submittal to the Town along with the documentation described above.

Provisions of the waste reduction plan may include, but are not necessarily limited to the following:

- The waste reduction plan shall specify whether reusable items will be deconstructed and salvaged;
- The waste reduction plan shall specify whether separation of select debris materials will be performed on the Project Site;
- The waste reduction plan shall specify whether or not a debris box will be used.

⁸³ "Chapter 15.18 - RECYCLING OF CONSTRUCTION AND DEMOLITION DEBRIS | Code of Ordinances | Hillsborough, CA | Municode Library," 1.

4.20 Wildfire

WILDFIRE						
If located in or near state responsibility areas or lands classifies as very high fire hazard severity zones, would the proposed Project:		<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>	<i>Source</i>
a)	Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,2,3
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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1
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 checked="" type="checkbox"/>	1
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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1

Environmental Setting

Wildfire risk in the Town of Hillsborough is relatively high due to the extensive presence of vegetation in close proximity to homes, and is further amplified by the narrow roadways that were designed to minimize through traffic. To address fire risk, in 2018, the Town of Hillsborough adopted an updated Wildland-Urban Interface (WUI) Code, which provides building requirements for new construction in the WUI.

The Project Site is located within the WUI.⁸⁴ According to the California Department of Fire and Forestry (Calfire)'s fire hazard mapping program, the Project Site is located in a very high fire hazard severity zone⁸⁵ and is within the local responsibility area.⁸⁶ Fire protection services for the Project Site are provided by Central County Fire, with the nearest station located approximately three minutes driving from the Project Site.

As described in the Project Description, the Project Site is within a steep creek bed with a roughly 25% slope. The site sits atop a mix of urban and loamy soils⁸⁷ with debris flow sources present but a history of few landslides.⁸⁸ The Project Site is relatively densely vegetated, with 24 trees present. Of these, four are considered to be in poor health.⁸⁹ The Project Site is located in a residential area with little roadway capacity. All roads immediately adjacent to the Project Site support one lane of traffic in each direction. The Project Site is bordered on all sides by single-family residences on densely vegetated parcels.

Discussion of Impacts

- a) ***Less than Significant with Mitigation Incorporated.*** The Town of Hillsborough is characterized by its residential, semi-rural character. The Town's streets were therefore designed to accommodate minimal through-traffic. In the vicinity of the Project Site, most streets have one lane in each direction and do not have a shoulder or parking spaces. Construction equipment would be staged off-site when not in use, minimizing the risk of obstructing emergency response during evenings and weekends, when construction would not occur. During construction hours, however, given the narrow design of adjacent roadways it is possible that on-site construction equipment could obstruct emergency response in the event of an evacuation or should emergency vehicles require passage.

Mitigation Measure HAZ-2 (Section 4.9) requires notification of emergency service providers 72 hours prior to the start of construction and compliance with the Town of Hillsborough's recommended traffic BMPs during construction, minimizing the risk of obstructing emergency access. Following construction, the proposed Project would not

⁸⁴ Association of Bay Area Governments, "Bay Area Hazards," 1998, <http://gis.abag.ca.gov/website/Hazards/?hlyr=concordGV&co=6013>.

⁸⁵ Town of Hillsborough Public Works, *Fire Hazard Map: WUI and SFHZ Parcel Data*, September 20, 2018, September 20, 2018, <http://www.ccfdonline.org/wp-content/uploads/2018/10/Town-of-Hillsborough-Fire-Hazard-Map.pdf>.

⁸⁶ California Department of Forestry and Fire Protection, *San Mateo County Very High Fire Hazard Severity Zones in LRA as Recommended by CAL FIRE* (San Mateo County, CA, November 24, 2008), https://osfm.fire.ca.gov/media/6800/fhszl_map41.pdf.

⁸⁷ City of Hillsborough, "General Plan | Hillsborough, CA - Official Website."

⁸⁸ Association of Bay Area Governments and California Department of Fire and Forestry, "Bay Area Hazards."

⁸⁹ WRA, Inc., "Tree Survey Report: Sandra-Hayne Stormwater Improvement Project," October 2018.

interfere with an emergency response plan, as Project modifications would generally be confined to a creek bed which does not contain any emergency response infrastructure. The proposed Project would therefore not lead to physical modification or obstruction of emergency response infrastructure such as communication systems or roadways. As such, the proposed Project would not impair implementation of or physically interfere with implementation of an emergency response or evacuation plan in a very high fire hazard severity zone, and impacts would be less than significant with mitigation incorporated.

- b) ***Less than Significant with Mitigation Incorporated.*** Fire risk within and adjacent to the Project Site is pronounced due to the presence of dense vegetation in the creek bed and on adjoining parcels. This risk is further exacerbated by the presence of narrow, winding roadways, which could slow down evacuation procedures in the event of a fire. The proposed Project would not increase fire risk in the long term, as no new structures or fuel sources would be introduced to the Project Site and the proposed Project would not draw new people who would be exposed to fire risk to the area.

In the short-term, the presence of motorized equipment in the creekbed during the dry season may lead to a small, temporary increase in fire risk. Mitigation measure HAZ-3 requires that the contractor remove potential fuel sources such as dried vegetation and requires provision of fire extinguishers for service trucks, among other fire risk reducing measures. With implementation of Mitigation Measure HAZ-3 (Section 4.9), the proposed Project would not exacerbate wildfire risks, and thereby expose Project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. Impacts would accordingly be less than significant with mitigation incorporated.

- c) ***No Impact.*** The proposed Project would not require installation of any infrastructure that may exacerbate fire risk such as power lines or utilities; nor would it require installation of infrastructure intended to reduce wildfire risk or facilitate emergency response such as rods, fuel breaks, or emergency water sources. The proposed Project is a creek restoration and storm drain replacement which would not have any long-term impact on wildfire risk. Short-term increases in wildfire risk during construction would not be sufficiently severe or occur over a long enough period to require installation of risk attenuating infrastructure. As the proposed Project would not require installation or maintenance of associated infrastructure that may exacerbate fire risk or result in temporary or ongoing environmental impacts, no impact would occur.

- d) ***Less than Significant with Mitigation Incorporated.*** The Project Site is located within a steep creekbed with approximately 25% slopes. In the event of a fire, downstream locations may be susceptible to flooding and/or landslides due to slope instability within Cherry Creek. The creek daylighting portion of the proposed Project is intended to restore the creek bank to a more natural state that would slow erosion and improve bank stability. The proposed Project would therefore decrease the risk of downstream flooding and landslide due to post-fire slope instability or drainage changes. Thus, no long-term impact would occur. However, by temporarily exacerbating fire risk during construction through the use of motorized equipment in the creekbed, the proposed Project would consequently

lead to a temporarily increased risk in downstream flooding or landslide. With implementation of Mitigation Measure HAZ-3 (Section 4.9), the proposed Project's impact on on-site fire risk would be minimal. As such, the proposed Project's impact on downstream landslide and flooding that could result following a wildfire would also be minimal; and impacts would be less than significant with mitigation incorporated.

4.21 Mandatory Findings of Significance

MANDATORY FINDINGS OF SIGNIFICANCE	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact	Source
a) Does the proposed Project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,9,10
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)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1
c) Does the proposed Project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1

Discussion

- a) ***Less than Significant with Mitigation Incorporated.*** The proposed Project does not have the potential to substantially degrade the quality of the environment, reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of major periods of California history or prehistory. As illustrated throughout this document, the proposed Project would have generally beneficial effects on wildlife populations through habitat restoration. Any potentially adverse effects to wildlife during construction would be reduced to less than significant levels through implementation of mitigation measures discussed in Section 4.4, Biological Resources. The proposed Project would remove riparian vegetation, but vegetation would be replanted and there would be no long-term impacts on plant communities. Furthermore, as discussed in Section 4.5, Cultural Resources, the proposed Project would not eliminate important examples of major periods of California history or

prehistory. Thus, the proposed Project's impacts would be less than significant with mitigation incorporated.

- b) ***Less than Significant with Mitigation Incorporated.*** Other projects in the watershed with the potential to alter Cherry Creek's hydrology or water quality could result in cumulative impacts. However, given that the proposed Project would result in long-term beneficial effects, its contribution to any such effects would not be cumulatively considerable. Other construction projects with substantial temporal and spatial overlap with the proposed Project's construction could result in cumulative impacts related to transportation and hazards due to the use of residential roadways by heavy equipment and construction workers. However, the proposed Project's contribution would not be cumulatively considerable, as mitigation discussed in Section 4.17, Transportation, would assure coordination with other ongoing construction projects and minimize potential impacts. Furthermore, no construction projects were identified with substantial temporal and spatial overlap that would potentially result in cumulative impacts. Thus, the proposed Project would not result in impacts that are individually limited but cumulatively considerable, and this impact would be less than significant with mitigation incorporated.
- c) ***Less than Significant with Mitigation Incorporated.*** Construction-related impacts to Hazardous and Hazardous Materials, Noise, and Transportation have the potential to adversely affect human beings. With implementation of the various construction measures, BMPs, and Mitigation Measures included in this Initial Study, the proposed Project would not result in substantial adverse effects to human beings, either directly or indirectly. This impact would therefore be less than significant with mitigation incorporated.

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