Executive Summary

This executive summary is provided in accordance with Section 15123 of CEQA Guidelines. As stated in Section 15123(a) of CEQA Guidelines, "[a] EIR shall contain a brief summary of the proposed actions and its consequences. The language of the summary should be as clear and simple as reasonably practical." Section 15123(b) of CEQA Guidelines states, "[t]he summary shall identify: (1) Each significant effect with proposed mitigation measures and alternatives that would reduce or avoid that effect; (2) Areas of controversy known to the Lead Agency including issues raised by agencies and the public; and (3) Issues to be resolved including the choice among alternatives and whether or how to mitigate the significant effects." Accordingly, this summary includes a brief synopsis of the project and project alternatives, environmental impacts and mitigation measures, cumulative effects and mitigation measures, areas of known controversy, and issues to be resolved in the EIR. Table ES-1 presents the summary of potential environmental impacts, their level of significance before mitigation, mitigation measures, and levels of significance with mitigation.

ES.1 Summary of Project

The Marin County Flood Control and Water Conservation District (District) proposes the Corte Madera Creek Flood Risk Management Project, Phase 1 (project). The project objectives include the following:

1. **Flood-Risk Reduction.** Reduce overall flood inundation extent and depth in the Town of Ross and Kentfield areas.
2. **Environmental Benefits.** Improve fish passage, natural creek processes, and fish and riparian habitat adjacent to the creek.
3. **Public Access and Recreational Quality.** Maintain public access along the creek via the multi-use path and enhance the recreational experience and amenities along the creek corridor to meet Town of Ross and Kentfield area community needs.
4. **Operational Reliability.** Improve operational reliability and reduce long-term maintenance costs through improving channel stability and protecting existing utilities.
5. **Regulatory Compliance.** Comply with local, state, and federal environmental laws and regulations.
6. **Fiscally Responsible.** Implement a flood-risk reduction project that can be accomplished with local and reasonably foreseeable grant-funding opportunities.

As described in full in Chapter 2 Project Description, the project would be located within the Town of Ross and unincorporated Kentfield (see Figure ES-1). The larger Corte Madera Creek Flood Control Project was originally authorized under the Flood Control Act of 1944 and reauthorized in 1962. As originally planned, it consisted of six units with a concrete-lined channel extending approximately 6.5 miles from the San Pablo Bay upstream to the Town of Fairfax. It was designed to carry all the flow from a standard project flood (approximately 7,500 cubic feet per second [cfs] or a 0.4 percent annual exceedance probability event). Flood control improvements were completed in Units 1, 2, and 3 in 1968, 1969, and 1971, respectively. The Unit 1 and Unit 2 improvements consisted of an earthen trapezoidal channel, extending 3 miles from Kentfield to the San Pablo Bay. The upper 1,700 feet of Unit 2 was designed and constructed as a rectangular concrete-lined channel. Unit 3 extended the concrete-lined channel an additional 3,500 feet upstream, terminating 600 feet downstream of Lagunitas Road Bridge at the Denil fish ladder in the Town of Ross. Unit 4 was never constructed. The project would make improvements Units 2, 3, and 4 of the Corte Madera Creek channel. The project starts upstream of Lagunitas Road in the Town of Ross and ends downstream at the earthen channel in Kentfield. The District would implement this project to reduce flood risk by (i) increasing creek capacity to allow a greater volume of water to flow in channel; (ii) constructing or modifying flood protection elements, such as floodwalls and a stormwater pump station; and, (iii) enhancing creek habitat by removing portions of the concrete channel to create tidal, wetland, and riparian habitats and installing larger functional fish resting pools within the concrete channel. The proposed project elements are shown on Figure ES-2 through Figure ES-4.

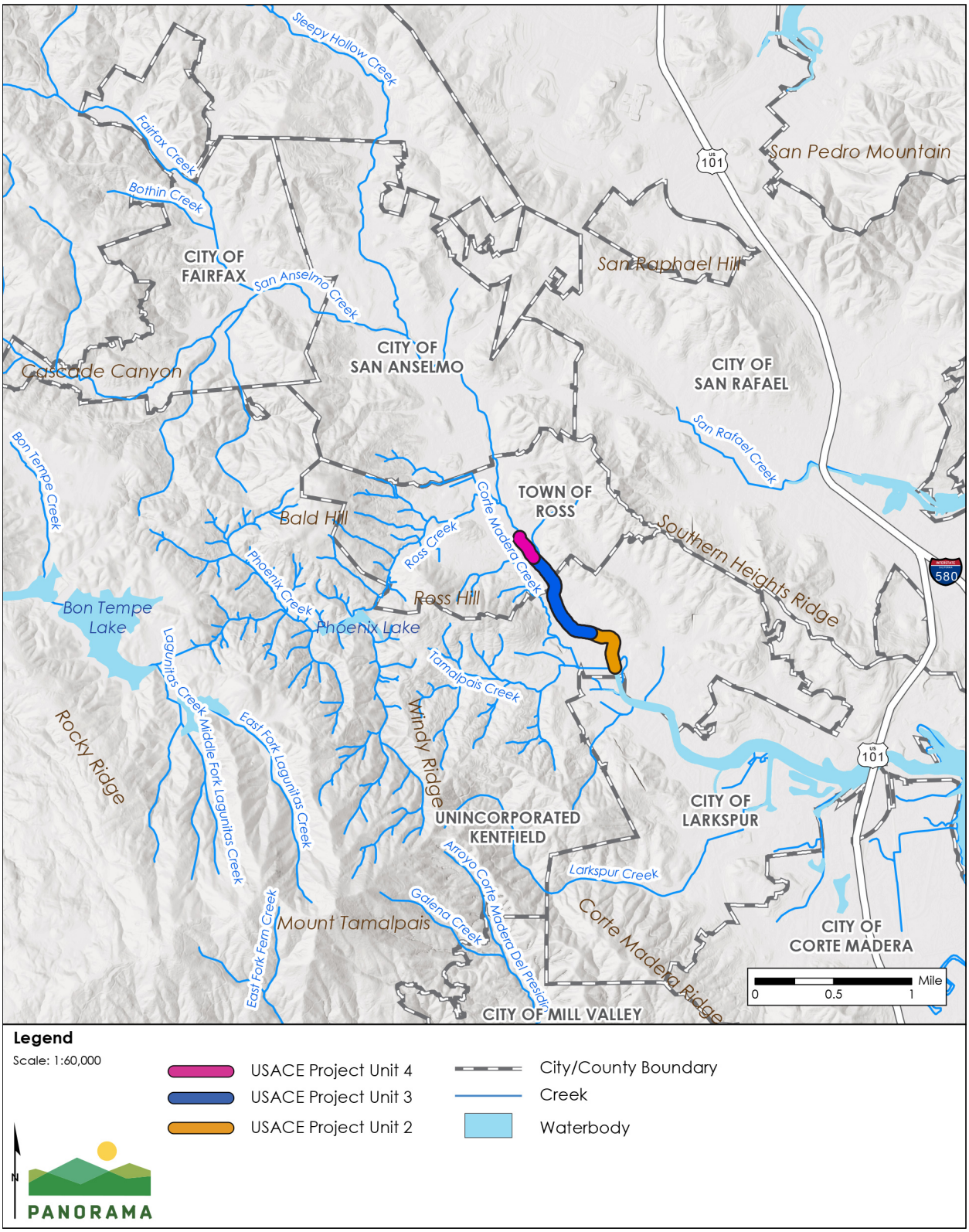
ES.2 Summary of Impacts and Mitigation Measures

Chapter 3 Environmental Setting, Impacts, and Mitigation Measures, describes in detail the environmental impacts that would result from implementation of the project. Impacts of the project may be classified as either:

1. **No impact**. No adverse effects would occur as a result of project implementation
2. **Less than significant**. Adverse effects would occur that are not substantial according to CEQA
3. **Less than significant with mitigation**. Significant or potentially significant adverse effects would occur, but feasible mitigation measures have been identified to reduce those impacts to less-than-significant level
4. **Significant and unavoidable**. Substantial or potentially substantial adverse changes in the environment would occur and the impacts cannot feasibly be reduced with mitigation measures to a less-than-significant level.

Table ES-1, at the end of this chapter, summarizes the project's environmental impacts (including cumulative impacts), the level of significance before mitigation, mitigation measures, and the level of significance after mitigation.

Figure ES-1 Project Location



Sources: (Tele Atlas North America, Inc., 2019; GHD, 2020h; USGS, 2019; U.S. Geological Survey, 2013)

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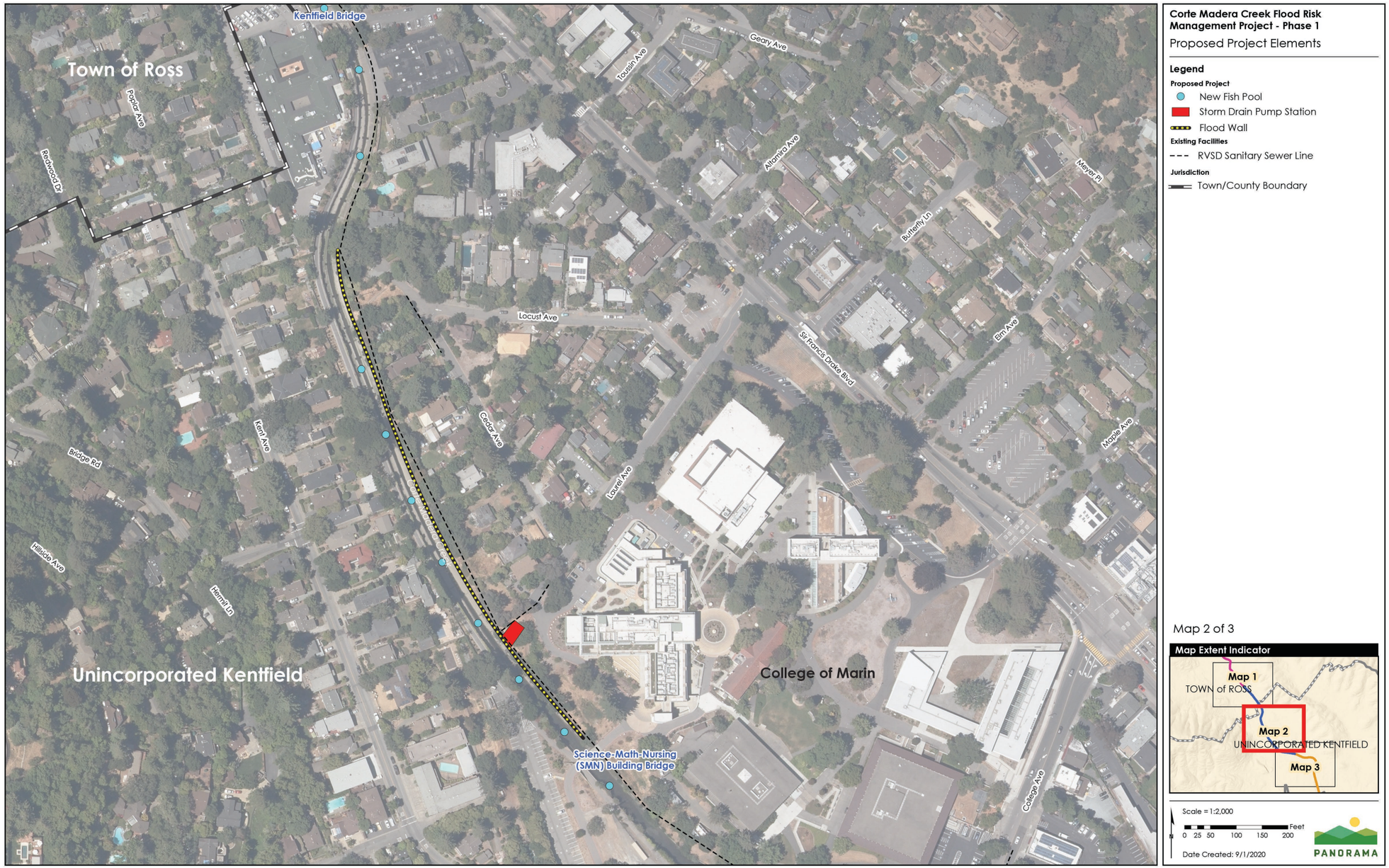
Figure ES-2 Project Elements (Map 1 of 3)

Source: (GHD, 2020a) (Stetson Engineers, Inc., 2020) (geomorphDESIGN, 2020a) (Tele Atlas North America, Inc., 2019) (Golden Gate National Parks Conservancy, 2018)

Figure ES-3 Project Elements (Map 2 of 3)



Source: (GHD, 2020a) (Stetson Engineers, Inc., 2020) (Tele Atlas North America, Inc., 2019) (Golden Gate National Parks Conservancy, 2018)

Figure ES-4 Project Elements (Map 3 of 3)

Source: (GHD, 2020a) (geomorphDESIGN, 2020b) (Stetson Engineers, Inc., 2020) (Tele Atlas North America, Inc., 2020) (Golden Gate National Parks Conservancy, 2018)

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ES.3 Summary of Significant and Unavoidable, Growth-Inducing, and Cumulative Impacts

This section summarizes the significant and unavoidable adverse impacts, growth-inducing impacts, and cumulative impacts of the project.

ES.3.1 Significant and Unavoidable Impacts

Section 15126.2(b) of CEQA Guidelines requires that an EIR describe the significant impacts of a proposed project, including those that cannot be fully mitigated. This EIR finds that following significant and unavoidable impact would occur if they project were to be implemented.

Aesthetics and Visual Resources

Impact 3.1-2: Removal of the established trees in Frederick Allen Park would change the visual quality of the park. While the project includes landscaping of the park and tree planting within the park, the trees and vegetation that would be planted within the park would not have the same density and canopy as the existing well-established trees for a period of approximately 10 years after tree planting because it would take time for the trees and vegetation to grow and reestablish the dense tree canopy within the park. Views within Frederick Allen Park would change as a result of the tree removal and landscaping because the existing trees and vegetation along the fence visually screen the surrounding commercial buildings on the right bank and views of the concrete channel and residential areas on the left bank. Immediately following planting, the proposed concrete retaining wall, surrounding buildings and earthen channel would become more exposed, which would result in a substantial change in visual quality due to the increased exposure of concrete structures within the park setting. The District would implement Mitigation Measure ~~3.1-2~~ 3.1-3: Large Tree Planting, which requires integrating large box trees into the planting plan and design for Frederick Allen Park. While planting larger trees in the park would minimize impacts to visual quality immediately following construction, the large box trees would not be the same size and would not provide the same visual screening and cover as the fully grown trees that would be removed. The mitigation measure would not fully compensate for the trees being removed in the park. The impact to visual quality would remain significant and unavoidable. Impacts would become less than significant after approximately 10 years, when the landscaping matures and provides cover and visual screening for the park.

ES.3.2 Growth-Inducing Impacts

Chapter 4 Growth-Inducing and Cumulative Effects, discusses the growth-inducement potential of the project. It explains that the project would not involve any housing construction, road extension, permanent employment opportunities, or any infrastructure improvements that could directly or indirectly induce growth. The project would reduce flood risk in existing developed areas. Consequently, implementation of the project would not affect current and/or projected population growth patterns within Marin County and, therefore, would not have a growth-inducing impact.

ES.3.3 Cumulative Impacts

Chapter 4 Growth-Inducing and Cumulative Effects, of this EIR includes an analysis of cumulative impacts from the project. Cumulative impacts, as defined in Section 15355 of the CEQA Guidelines, refer to two or more individual effects that, when taken together, are "considerable" or that compound or increase other environmental impacts. Cumulative impacts were analyzed based on a list of past, present, and probable future projects producing related or cumulative impacts. These impacts were analyzed for whether they were "cumulatively considerable" (i.e., whether the incremental effects of this individual project are considerable when viewed in connection with the effects of past, current, and probable future projects, including those outside the control of the agency).

The cumulative impact analysis found that the project would not cause a new cumulative impact or make a considerable contribution to an existing cumulative impact. That determination was made in some cases because there is no cumulative impact to which the project could contribute. In other cases, the project's impacts, either on their own or after implementation of project-level mitigation measures, would not make a considerable contribution to a cumulative impact.

ES.4 Summary of Plan and Policy Consistency

This EIR evaluates whether the project would conflict with the Marin Countywide Plan, the Marin County Development Code (Zoning and Subdivision Regulations), or the Town of Ross General Plan in Section 3.16 Agriculture and Forestry Resources, Mineral Resources, Land Use and Planning, Population and Housing, Wildfire, and Socioeconomics. That analysis concludes that the project would not conflict with applicable policies and regulations. Appropriate decision makers in the District (the CEQA lead agency), Marin County, and the Town of Ross will review the project and make final determinations about the project's consistency with all applicable plans and policies.

ES.5 Summary of Alternatives to the Project

This EIR examines the following four alternatives to the project. The alternatives are summarized below and are described in detail in Chapter 5 Alternatives.

ES.5.1 No Project Alternative

Inclusion and evaluation of the No Project Alternative in an EIR is required by CEQA. This alternative would avoid the adverse environmental impacts of the project's construction and operation. In the No Project Alternative, there would be no construction actions taken or changes to the existing flood control channel or the District's current operations, maintenance, or management practices. The District would continue to maintain the Corte Madera Creek flood control channel and adjacent multi-use path and the Town of Ross would continue to maintain Frederick Allen Park as they do now. Because none of the flood risk reduction benefits and none of the habitat benefits of the project would occur under the No Project Alternative, the

existing flood risk in the area and the degraded ecological condition, including fish passage barriers, would persist.

ES.5.2 Alternative 1: Reduced Footprint – Avoid Frederick Allen Park

Alternative 1 would avoid construction in Frederick Allen Park, which would reduce the project footprint/area of disturbance. Under Alternative 1, four larger fish pools would be constructed within the existing concrete channel adjacent to Frederick Allen Park, but no other modifications would occur to the concrete channel and no construction would occur in the park. Alternative 1 includes construction of all proposed project elements within Unit 4, lower Unit 3, and Unit 2, including removal of the wooden fish ladder in Unit 4.

Compared to the proposed project, Alternative 1 would reduce short-term impacts on aesthetics, air quality, biological resources, geology and soils, GHG emission, hazardous materials, hydrology and water quality, noise, recreation, transportation and circulation, and utilities. Alternative 1 would avoid the significant and unavoidable impact on visual quality. Alternative 1 would result in less long-term benefits to aesthetics, biological resources, geology and soils, hydrology and water quality, and recreation than the proposed project and provide less long-term GHG emission reduction benefits compared to the proposed project because Alternative 1 would involve less planting and natural stream processes that provide long-term GHG reductions through carbon sequestration. Alternative 1 would meet all feasibility criteria and would meet most project objectives.

ES.5.3 Alternative 2: Boardwalk in Frederick Allen Park

Alternative 2 would maintain the existing elevation for Bike Route 20 in Frederick Allen Park. The current bike path elevation would be maintained by constructing the multi-use path as a boardwalk, slightly elevated above the Frederick Allen Park floodplain area. No new public access to the creek would be included in Alternative 2. Alternative 2 would still include removal of the concrete channel and construction of a riparian floodplain within Frederick Allen Park. Alternative 2 includes construction of all proposed project elements within Unit 4, lower Unit 3, and Unit 2, including removal of the wooden fish ladder in Unit 4.

Compared to the proposed project, Alternative 2 would result in reduced operational impacts and increased long-term benefits on biological resources, hydrology and water quality, hazards, recreation, and transportation and circulation. Compared to the proposed project, Alternative 2 would result in a minor long-term net benefit for GHG emissions. Alternative 2 would meet all feasibility criteria and all project objectives.

ES.5.4 Alternative 3: Reduced Concrete and Increased Natural Materials

Alternative 3 would include constructing the retaining wall in Unit 4 and Frederick Allen Park using materials such as rocks or natural materials rather than concrete, and allowing vegetation plantings within the retaining walls; would replace the concrete transition structure at the connection between Units 3 and 4, with quarter- or half-ton rock instead of concrete; and, would include constructing the additional floodwall segment within lower Unit 2, using material such

as rock or a soil-type barrier instead of concrete. The natural floodwall in Unit 2 would remain on the District's property but would be set back from the existing floodwall.

Compared to the proposed project, Alternative 3 would result in a slight reduction in long-term aesthetic, biological, and hydrology and water quality impacts than the proposed project. However, this alternative could result in slightly increased temporary air quality, GHG emissions, and energy impacts during construction due to increased import of materials. Alternative 3 would result in similar long-term GHG emission impacts as the proposed project. Alternative 3 would meet all feasibility criteria and all project objectives.

ES.6 Significant Irreversible Environmental Changes

Construction activities associated with the project would result in an irretrievable and irreversible commitment of natural resources though direct consumption of fossil fuels and use of materials. However, the energy consumption for construction would not result in substantial depletion of non-renewable energy resources and would not permanently increase reliance on energy resources that are not renewable. Construction activities would not reduce or interrupt existing electrical or natural gas services such that existing supplies would be constrained.

Project operations that would affect irretrievable resources would be limited to operation of the new stormwater pump station. Project maintenance would involve activities similar to maintenance of the existing flood control channel. Maintenance activities would result in irreversible and irretrievable use of energy and material resources from annual testing and emergency use of the stormwater pump station generator, use of electricity to power the stormwater pump station during storms, and use of diesel fuel and oil for maintenance vehicles and equipment. The commitment of non-renewable resources usage would be minor, and therefore, would not be significant.

The use of nonrenewable resources is expected to account for a minimal portion of the region's resources and would not affect the availability of these resources for other needs within the region.

ES.7 Areas of Known Controversy

The District held a web-based public scoping meeting on August 27, 2020, to solicit agency and public input regarding the project design and concept. Oral comments were received at the scoping meeting, and additional written comments were received at and following the meeting.

The topics commented on – and thus the main areas of potential controversy are summarized in Table ES-1.

Table ES-1 Summary of Scoping Comments and Areas of Potential Controversy

Topic	Consideration
Aesthetics and Visual Resources	• Consider aesthetic impacts of tree removal on park setting
Air Quality	• Consider air quality impacts at Frederick Allen Park from tree removal. • Address air quality impacts during construction.
Biological Resources	• Address impacts on sensitive species (including special-status plants, fish, and wildlife) and habitats. • Address impacts on fish and wildlife from the proposed creek access. • Address fish passage and fish pools improvement effects. • Address introduction of invasive species. • Address noise and vibration impacts on fish and birds. • Address impacts from tree removal and provide mitigation. • Discuss revegetation and restoration in the project area. • Provide plans for dewatering and fish rescue.
Cultural and Tribal Cultural Resources	• Obtain approval for the final disposition of archaeological, historical, and paleontological resources recovered on State lands.
Geology and Soils	• Address impacts from sediment erosion and aggradation in the Frederick Allen Park Riparian corridor. • Incorporate geological information from Marin Countywide Plan into the EIR. • Address impacts on the structural integrity of the existing concrete channel from the proposed fish pools.
Greenhous Gas Emissions	• Address impacts from greenhouse gas emissions during construction and operation and consider impacts from disposal of the concrete that will be removed in Unit 2.
Hazards and Hazardous Materials	• Address potential impacts from waste entering the creek from surrounding areas. • Discuss increasing risk to public safety from the floodwalls and retaining walls. • Address public safety risk at Frederick Allen Park and potential for people to come in contact with rapidly moving water.
Hydrology and Water Quality	• Address impacts from sediment erosion and accumulation, including increased risk of erosion from tree removal. • Address impacts from rising tidal influence and sea level rise. • Address impacts on flow, hydraulics, sediment transport, and sedimentation from new fish pools. • Address impacts from induced flooding in Frederick Allen Park. • Address impacts from overland water flow from Bolinas Avenue, Fernhill, Southwood, Norwood, Ames, and Lagunitas Road. • Address impacts on the flow through Frederick Allen Park. • Discuss flood risk on Kent Avenue.

Topic	Consideration
	• Discuss accuracy of modeling and calculations. • Compare the 10-year and the 25-year flood risk reduction benefits under existing conditions and existing with cumulative projects. • Address impacts on water quality.
Noise	• Address noise impacts from the stormwater pump station. • Address noise impacts during construction.
Recreation	• Address impacts on bicycle route and use of the multi-use pathway. • Discuss impacts on informal pedestrian pathways.
Transportation	• Address safety of bicyclists and pedestrians on realigned multi-use pathway. • Address impacts from construction truck trips. • Address impacts on bicycle and pedestrian access. • Address impacts on bike path.
Cumulative	• Address cumulative impacts from reasonably foreseeable future projects in the project vicinity. • Address flooding impacts in Granton Park from the access ramp.
Alternatives	• Consider an alternative that only removes the fish ladder • Consider an alternative with floodwall designs that would provide habitat value and would be appropriate for the seawalls on Corte Madera Creek. • Consider an alternative that does not include the project element in the Town of Ross. • Consider an alternative that requires less concrete removal and uses more natural materials. • Consider an alternative that minimizes the need and height of the floodwalls. • Consider an alternative that would eliminate or reduce potentially adverse impacts from sea level rise. • Consider an alternative for the area between Sir Francis Drake Blvd. and Lagunitas Bridge. • Consider an alternative for drainage under Kent Avenue. • Consider an alternative that would address flooding to residents of Sylvan Lane and Shady Lane.

A Scoping Summary Report containing the Notice of Preparation and scoping comments received are included in Appendix A. The Scoping Summary Report also identified the Draft EIR sections that address the scoping issues raised in the comments received.

ES.8 Major Conclusions and Issues to be Resolved

The following major conclusions and issues to be resolved are derived from the analysis in the EIR. The major conclusions of the EIR are presented first, followed by the issues to be resolved. The issues are presented to highlight the topics on which the decision-makers may want to focus special attention.

ES.8.1 Major EIR Conclusions

The EIR evaluates a total of 56 project-based potential adverse environmental impacts. Of these, 19 are identified as significant impacts. Feasible mitigation measures are available to reduce all but one of the project's significant project-based effects to a less-than-significant level. The one significant and unavoidable impact of the project is the temporary impact on visual quality within Frederick Allen Park. The impact on visual quality would be significant and unavoidable for a period of approximately 10 years while the planted trees grow to a height where the tree canopy screens views of the concrete structures and surrounding buildings to a level that is similar to the existing visual screening of the surrounding area. The EIR also evaluates cumulative impacts of the project in combination with other related past, present, and probable future projects, and identifies one significant cumulative impact. The project's contribution to this impact would not be cumulatively considerable with implementation of mitigation.

The project would result in a substantial net reduction in flooding under existing and cumulative project conditions for the 10-year, 25-year and 100-year storm events within the Town of Ross and Kentfield area. The project would result in some increased flooding within parking areas adjacent to Corte Madera Creek near the College Avenue Bridge; however, the areas of increased flooding do not contain any homes or buildings and the increased flooding would not create a risk to life or property.

ES.8.2 Issues to be Resolved

Draft EIR Section 3.1 Aesthetics and Visual Resources, identified a significant and unavailable visual quality impact in Frederick Allen Park. Implementation of mitigation, which involves planting larger trees would not avoid the significant impact in Frederick Allen Park because the large trees would take approximately 10 years to mature and replace the tree canopy that is currently provided by the trees that would be removed in the park. The impact to visual quality would remain significant and unavoidable during the first 10 years of project operation. Impacts would be less than significant when the landscaping matures and provides shades, cover, and visual screening from the surrounding area.

The District's Board of Supervisors will need to consider whether to adopt a statement of overriding considerations, prior to approving the project, stating the reasons why the benefits of the project outweigh its significant and unavoidable impact as identified in this EIR and/or adopt feature of one or more of the alternatives that would further reduce this impact.

ES.8.3 Effects Found Not to be Significant

The impact analysis determined that in 10 of the 20 resource areas, impacts would be either less than significant or have no impact, generally due to the project's required compliance with applicable regulations protecting these resources and/or limited extent that the existing resource would be affected by the project. These resource areas are:

- Energy
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials

- Public Services
- Utilities and Service Systems
- Agriculture and Forestry Resources
- Mineral Resources
- Land Use and Planning
- Population and Housing
- Wildfire

The EIR identified significant impacts that could be mitigated to a less-than-significant level with implementation of mitigation measures in the following resource areas:

- Air Quality
- Biological Resources
- Cultural Resources
- Geology and Soils
- Hydrology and Water Quality
- Noise
- Recreation
- Transportation and Circulation
- Tribal Cultural Resources

ES.9 Other Social and Economic Impacts Found not to be Significant

CEQA Guidelines Section 15382 provides that "[a]n economic or social change by itself shall not be considered a significant effect on the environment." However, physical impacts associated with social or economic changes may be considered significant. Pursuant to CEQA Guidelines Section 15382, purely economic or social impacts would not be considered significant impacts of the project. This EIR evaluates all physical impacts that would result from the project and has not identified any physical impacts associated with substantial social or economic changes.

ES.10 Mitigation Monitoring and Reporting Program

In conformance with California Resources Code Section 21081.6, a Mitigation Monitoring and Reporting Program has been prepared for the project, if approved. The purpose of the program would be to ensure compliance with the mitigation measures incorporated into the project and set forth in this EIR. The Mitigation Monitoring and Reporting Program is presented in Appendix G.

Table ES-~~1~~2 Summary of Impacts and Mitigation for the Project

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Aesthetics and Visual Resources			
Impact 3.1-1: The project would not have a substantial adverse effect on a scenic vista.	Less than Significant	None required.	Less than Significant
Impact 3.1-2: The project would not conflict with applicable zoning and other regulations governing scenic quality	Less than Significant	None required.	Less than Significant
Impact 3.1-3: The project would substantially degrade the existing visual character or quality of public views of the site and its surroundings	Potentially Significant	**Mitigation Measure 3.1-3: Large Tree Planting**. The District will integrate ~~large box trees~~ 24-inch or 36-inch box trees into the final planting plan and design for Frederick Allen Park, to the extent ecologically appropriate for the proposed species. The Town of Ross will provide the desired size and species of trees to the District. The final planting plan will be provided to the Town of Ross for review and approval ~~comment~~ no less than 90 days prior to landscaping. The District will be responsible for maintaining replacement trees until they become established and for replacing dead trees for a period of no less than 10 years.	Significant and Unavoidable
Air Quality			
Impact 3.2-1: The project would not conflict with or obstruct implementation of the applicable air quality plan.	Less than Significant	None required.	Less than Significant
Impact 3.2-2: The project would not result in a cumulatively considerable net increase of any criteria pollutant for which the region is in nonattainment under an applicable federal or state ambient air quality standard.	Potentially Significant	**Mitigation Measure 3.2-2: Fugitive Dust Measures.** To limit dust, criteria pollutants, and precursor emissions associated with construction, the following BAAQMD-recommended fugitive dust control measures shall be implemented and included in all contract specifications for components constructed under the project: • All exposed surfaces (e.g., unpaved parking areas, unpaved staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day. • All haul trucks transporting soil, sand, or other loose material off site shall be covered. • All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited. • All vehicle speeds on unpaved roads shall be limited to 15 mph. • Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points. • Construction equipment shall be properly maintained by a certified mechanic. • A publicly visible sign shall be posted with the telephone number and person to contact at the District regarding dust complaints. This person shall respond and take corrective action within 48 hours. The BAAQMD's phone number shall also be visible to ensure compliance with applicable regulations.	Less than Significant
Impact 3.2-3: The project would not expose sensitive receptors to substantial pollutant concentrations.	Potentially Significant	**Mitigation Measure 3.2-3: Engine Controls for Construction Equipment.** All off-road equipment greater than 25 horsepower that operates for more than 20 total hours over the entire duration of construction activities shall have engines that meet the USEPA or CARB Tier 3 off-road and Diesel Particulate Filter level 3 emission standards or more stringent standards for all phases of construction except the Lower College of Marin concrete channel removal.	Less than Significant
Impact 3.2-4: The project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.	Less than Significant	None required.	Less than Significant

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Biological Resources			
Impact 3.3-1: The project would not have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.	Potentially Significant	**Mitigation Measure 3.3-1a: Avoid Special-Status Plants and Sensitive Natural Communities.** Prior to construction, the District shall have a qualified botanist conduct botanical surveys according to CDFW protocols (i.e., Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities [CDFW, 2018 or more current]) during the appropriate time(s) of year (i.e., surveys shall coincide with the phenological stage during which the potential special-status plant species are identifiable in the field—for example, in April and again in July) to determine if any potential special-status plant species or sensitive natural communities are located within or immediately adjacent to the project area. If construction is planned to begin prior to the completion of comprehensive botanical surveys (e.g., construction is planned for April 2022, but plant surveys are planned for April and July), then the District shall conduct comprehensive plant surveys the year prior to construction (e.g., in 2021). If no special-status plants or sensitive natural communities are observed during appropriately timed surveys by a qualified botanist, it is assumed the construction activity will have no impact on special-status plants or sensitive natural communities and no further action is required. Immediately preceding construction, the District shall flag or otherwise mark (e.g., stake, fence) areas with special-status plants or sensitive natural communities within the project area for avoidance, including a 10-foot radius buffer. The District also shall identify locations for equipment and personnel-access and materials staging that will minimize disturbance in riparian habitat and coastal brackish marsh. When heavy equipment is required, unintentional soil compaction shall be minimized by using equipment with a greater reach or using low-pressure equipment. A biological monitor shall be present during construction within a 10-foot buffer of special-status plants to ensure impacts are avoided. If avoidance of any special-status plant is not possible, prior to construction the District shall coordinate with CDFW and/or USFWS to establish procedures for compensatory mitigation. These measures may include collection of seeds when mature (generally the beginning of plant senescence) and salvage and transplant of any special-status plants that would otherwise be impacted by construction activities. Mitigation ratios, location, and timing of transplants shall be determined in consultation with CDFW and/or USFWS, and the mitigation ratio will be at a minimum of 1:1. The District shall monitor the success of transplant establishment for a period of at least three years, or as otherwise required by CDFW and/or USFWS. Location of transplanted individuals shall be recorded using a submeter-accuracy global positioning system (GPS) to enable location of the special-status plant species during and after the monitoring period is complete. **Mitigation Measure 3.3-1b: Fish Capture and Relocation.** If in-channel work requires dewatering, including for sediment-removal maintenance activities, fish shall be captured and relocated upstream of the project areas to avoid injury and mortality and minimize disturbance. The District shall implement the measures below and described in the fish rescue plans in Appendix D, or whatever more stringent species-preservation and avoidance measures are imposed by resource agencies, including NMFS and CDFW, with jurisdiction over aquatic special-status species. 1. The name(s) and credentials of qualified biologist(s) to act as construction monitors shall be submitted to CDFW and NMFS for approval at least 15 days before construction work begins. 2. Prior to and during the initiation of construction activities, a qualified fisheries biologist (i.e., approved by CDFW and/or NMFS) shall be present during installation and removal of creek-diversion structures. 3. For sites that require flow diversion and exclusion, the work area shall be blocked by placing fine-meshed nets or screens above and below the work area to prevent salmonids from re-entering the work area. To minimize the potential for re-entry, mesh diameter shall not exceed 1/8 inch. The bottom edge of the net or screen shall be secured to the channel bed to prevent fish from passing under the screen. Exclusion screening shall be placed in low-velocity areas to minimize fish impingement against the mesh. Screens shall be checked periodically and cleaned of debris to permit free flow of water. 4. Before removal and relocation on individual fish begins, a qualified fisheries biologist shall identify the most appropriate release location(s). In general, release locations should have water temperatures similar to (<3.6 degrees Fahrenheit difference) the capture location and offer ample habitat (e.g., depth, velocity, cover, connectivity) for	Less than Significant

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation

released fish and should be selected to minimize the likelihood of reentering the work area or becoming impinged on exclusion nets or screens.

5. The means of capture shall depend on the nature of the work site and shall be selected by a qualified fisheries biologist as authorized by CDFW and NMFS. Complex stream habitat may require the use of electrofishing equipment, whereas in outlet pools, fish and other aquatic species may be captured by pumping down the pool and then seining or dip netting. Electrofishing, if necessary, shall be conducted only by properly trained personnel holding current permits from CDFW and NMFS and following the most recent NMFS electrofishing guidelines (NMFS, 2000).
6. Initial fish relocation efforts shall be performed several days prior to the scheduled start of construction and continue through cofferdam installation and work-area dewatering activities.
7. Flow diversions and species relocation shall be performed during morning periods. The fisheries biologist shall survey the exclusion screening throughout the diversion effort to verify that no special-status fish, amphibians, or aquatic invertebrates are present. Handling of fish shall be minimized. When handling is necessary, personnel shall wet hands or nets before touching them.
8. Prior to translocation, fish that are collected during surveys shall be temporarily held in cool, aerated, shaded water using a five-gallon container with a lid. Overcrowding in containers shall be avoided; at least two containers shall be used, and no more than 25 fish shall be kept in each bucket. Aeration shall be provided with a battery-powered external bubbler. Fish shall be protected from jostling and noise and shall not be removed from the container until the time of release. A thermometer shall be placed in each holding container, and cold blocks or partial water changes shall be conducted as necessary to maintain a stable water temperature. Special-status fish shall not be held more than 30 minutes.
9. If fish are abundant, capture shall cease periodically to allow release and minimize the time fish spend in holding containers.
10. Fish shall not be anesthetized or measured. However, they shall be visually identified to species level, and year classes shall be estimated and recorded.
11. Reports on fish-relocation activities shall be submitted to CDFW and NMFS in within two weeks following completion of in-channel operations.

Mitigation Measure 3.3-1c: Environmental Awareness Training and Site Protection. All construction personnel shall attend an environmental education program delivered by a qualified biologist prior to working in the project area. The training shall include an explanation as how to best avoid the accidental take of special-status species, including salmonids and other fish species, amphibians, reptiles, birds, and rare plants.

The training session shall be mandatory for contractors and all construction personnel. The field meeting shall include topics on species identification, life history, descriptions, and habitat requirements during various life stages. Emphasis shall be placed on the importance of the habitat and life-stage requirements within the context of maps showing areas where minimization and avoidance measures are being implemented. The program shall include an explanation of appropriate federal and state laws protecting endangered species and all mitigation measures that will be implemented to avoid significant impacts on special-status species. Each person will receive a training handout for their use and reference.

The contractor shall provide closed garbage containers for the disposal of all trash items (e.g., wrappers, cans, bottles, food scraps). Work sites shall be cleaned of litter before closure each day and litter placed in wildlife-proof garbage receptacles. Construction personnel shall not feed or otherwise attract any wildlife. No pets, excluding service animals, shall be allowed in construction areas.

Mitigation Measure 3.3-1d: Avoid Impacts to Special-Status Birds. If tree removal occurs outside of the nesting season, no surveys or monitoring would be needed. If tree removal or construction occurs in the nesting season (February 1 to August 31). If tree removal or construction occurs in the nesting season (February 1 to August 31), a qualified biologist shall conduct a white-tailed kite and general nesting bird survey within the project area and areas within a 500-foot buffer from project construction. If active nests are identified, a no-disturbance buffer zone will be established around the nest as appropriate and in consideration of line-of-sight for the bird as well as existing human presence/activities

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation

around the nest when it was established; recommended buffers are 500 feet for white-tailed kite and non-listed raptors, and 25 feet to 250 feet for other non-listed birds as recommended by a biologist who is qualified to assess avian breeding behavior. Smaller buffers may be appropriate in the project area given the limited line of site due to existing development and anthropogenic disturbance in the area (e.g., traffic on Sir Francis Drake and adjoining areas). Construction work may continue outside of the no-work buffer.

Mitigation Measure 3.3-1e: Invasive Plant Species Control. All vehicles and equipment entering the project shall be washed to remove dirt, pathogens, invasive plant seeds, or invasive plant parts prior to entry on the project site. Particular attention shall be shown to the undercarriage and any surface where soil containing invasive plant seeds may exist. The District shall dispose of the waste material in an appropriate disposal facility. Arrangements shall be made for inspection of each piece of equipment before entering the project construction areas to ensure all equipment has been properly washed. The District shall follow these additional measures:

- Any permanent or temporary erosion control measures implemented to minimize erosion during and after construction shall be certified weed-free.
- Nursery operations that supply revegetation or seeding plant material must certify implementation of best management practices to reduce pest and pathogen contamination within their nursery, including of Phytophthora pathogens, the pathogen responsible for Sudden Oak Death (SOD).
- All tree removal and trimming activities shall include measures to avoid the spread of SOD (Phytophthora) pathogens. This may include, but is not limited to the following:
  - As a precaution against spreading the pathogen, pruning tools shall be cleaned and disinfected after use on confirmed or suspected infested trees or in known infested areas. Tools shall be sanitized before pruning healthy trees or working in pathogen-free areas. Chippers and other vehicles of mud, dirt, leaves, organic material, and woody debris shall be cleaned before leaving a site known to have SOD and before entering a site with susceptible hosts.
  - Crews shall be informed about the arboricultural implications of SOD and sanitation practices when they are working in infested areas.
  - Sanitation kits containing chlorine bleach, scrub brush, metal scraper, boot brush, and plastic gloves shall be provided to crews.
  - Shoes, pruning gear, and other equipment shall be sanitized before working in an area with susceptible species.
  - When possible, the District shall conduct work on SOD-infected and susceptible species during the dry season (June through October). When working in wet conditions, equipment shall be kept on paved, graveled, or dry surfaces and mud avoided. The District shall work in disease-free areas before proceeding to any infested areas.
  - If possible, soil or plant material (wood, brush, leaves, and litter) from host trees in any infested areas shall not be collected. Rather, material (e.g., wood, bark, brush, chips, leaves, or firewood) from tree removals or pruning of symptomatic or non-symptomatic host plants shall remain on site to minimize pathogen spread.
  - All reasonable methods to sanitize personal gear and crew equipment shall be used before leaving an SOD infested site. Accumulated soil and mud shall be scraped, brushed, and/or hosed off from clothing, gloves, boots, and shoes. Mud and plant debris shall be removed by blowing out or power washing chipper trucks, chippers, bucket trucks, fertilization and soil aeration equipment, cranes, and other vehicles. Movement of soil and leaf litter shall be restricted under and around infected trees as spores may be found there.
  - Tools used in tree removal/pruning may become contaminated and shall be disinfected with alcohol or chlorine bleach.

Mitigation Measure 3.3-1f: Intertidal Upstream of Stadium Way Cofferdam. Prior to completing construction of the cofferdam near Stadium Way for the Unit 2 dewatering, an inspection of the reach upstream will be conducted to determine if tidal water is present at low tide. A fish removal/herding effort will be initiated if tidal water is present. The fish removal/herding effort will consist of a beach seine sweep beginning at the upstream end of tidal water and proceeding in a downstream direction to the Stadium Way cofferdam site. The impoundment structure could be completed once the sweeping action is downstream of the cofferdam. This action would ensure that estuarine fish would

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		not be stranded in standing water upstream of the Stadium Way cofferdam and be subject to injury or mortality during the approximately eight weeks this reach would be cut off from tidal flux. **Mitigation Measure 3.3-1g: Avoid Salt Marsh Harvest Mouse.** Prior to initiation of project work in potential salt marsh harvest mouse habitat, the areas and pathways to be affected will be flagged by construction personnel and verified by a Qualified Biological Monitor (including work areas, staging areas, and access roads/paths to these work and staging areas). The flagged areas(s) will include a two-foot perimeter buffer. All wetland vegetation and other vegetation within 50 feet of wetland vegetation requiring removal will be removed under the supervision of the USFWS- and CDFW-approved Qualified Biological Monitor. This vegetation will be salvaged and maintained on site and will be replanted upon completion of construction activities. Vegetation removal shall start at the edge farthest from the salt marsh or the poorest habitat and work its way towards the salt marsh or the better salt marsh habitat. If a mouse of any species is observed within the areas being removed of vegetation, work shall be halted and the USFWS and CDFW shall be notified. To prevent salt marsh harvest mice from moving through the project site during construction, temporary exclusion fencing will be placed around defined work area(s) identified by the Qualified Biological Monitor prior to the start of construction activities. The fencing will be installed immediately after vegetation removal, with the two-foot buffer (cleared of vegetation) remaining between fencing and existing vegetation. The fence will consist of silt fencing (or similar material) and will be buried to a minimum depth of two inches so that mice cannot crawl under the fence. Fence height will be at least one foot higher than the highest adjacent vegetation, with a minimum height of two feet. All supports for the exclusion fencing will be placed on the inside of the work area. The fencing will be immediately removed upon project completion. Prior to the start of daily construction activities, the Qualified Biological Monitor will inspect the exclusion fencing to ensure that it is functional (e.g., has no rips or tears and remains buried in the ground). The fenced area(s) will also be inspected to ensure that no mice are trapped there. Any mice suspected to be salt marsh harvest mice that are found along and outside the fence will be closely monitored until they move away from the construction area. To prevent potential entrapment of salt marsh harvest mice in work equipment, pipes or similar objects located in salt marsh harvest mouse habitat will be capped prior to the end of the workday and then inspected by the biological monitor prior to commencement of work activities the following day. Work in or immediately adjacent to vegetated marsh areas, as identified by the Qualified Biological Monitor, will be scheduled to avoid extreme high tides because protective cover for mice is limited at this time. Specifically, no work will occur two hours before or after extreme high tides as directed by the Qualified Biological Monitor for 6.0 feet National Geodetic Vertical Datum (NGVD) or above, as measured at the Golden Gate Bridge, or adjusted to the timing of local extreme high-tide events in which the marsh plain is flooded.	
Impact 3.3-2: The project would not have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.	Potentially Significant	**Mitigation Measure 3.3-1a: Avoid Special-Status Plants and Sensitive Natural Communities (see above)** **Mitigation Measure 3.3-1e: Invasive Plant Species Control (see above)** **Mitigation Measure 3.3-2a: Habitat Restoration and Monitoring Plan.** The District shall prepare a Habitat Restoration and Monitoring Plan for revegetation prior to construction activities as detailed herein. The plan shall describe any required salvage and replanting protocols prior to and after construction is complete. The plan shall include, but not be limited to, protocols for replanting of vegetation removed prior to or during construction and management and monitoring of the plants to ensure replanting success pursuant to the most stringent requirements included in permits issued for the project. At a minimum, impacted trees greater than or equal to six inches diameter at breast height (dbh) shall be mitigated at a minimum of 1:1 replacement for nonnative tree species and 3:1 replacement for native tree species. Monitoring and any necessary maintenance of revegetated areas shall occur for a minimum of ten years. The plan shall specify monitoring and performance criteria for the species planted and invasive species control criteria as well as the best time of year for planting and seeding to occur, pursuant to requirements of permits from the various resource agencies with regulatory purview over the project. At a minimum, replanted woody trees and shrubs shall have a minimum of 85% survival after five years of monitoring to track progress toward performance criteria. Additional	Less than Significant

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		monitoring shall be conducted if the revegetated areas do not meet the performance criteria in year five; any replacement plants shall be monitored with the same survival criteria for five years after planting. Areas impacted by construction-related activity shall be replanted or reseeded with native trees, shrubs, and herbaceous perennials and annuals from the watershed under guidance from a qualified biologist. Local plant materials shall be used for revegetation of the disturbed area. The plant materials shall include local cuttings from the local watershed or from adjacent watersheds. Seeds shall be collected during the appropriate season, and the container plants shall be of an appropriate size for out-planting. The Habitat Restoration and Monitoring Plan shall also address restoration of jurisdictional wetlands and waters. Temporary impacts to wetlands shall be restored on site with native wetland species under guidance from a qualified biologist. Permanent impacts to jurisdictional wetlands shall be mitigated for by replacement on or off site at a minimum 1:1 ratio or whatever more stringent requirements are included in the permits to be issued for the project. The monitoring plan shall include annual monitoring of restored areas for at least five years. The plan shall contain vegetation management protocols, protocols for monitoring replanting success, and an adaptive management plan if success criteria are not being met. The adaptive management plan would include interim thresholds for replanting success and alternative management approaches, such as weed control, supplemental watering, or additional replanting to undertake if thresholds are not met. **Mitigation Measure 3.3-2b: Tree Mitigation.** To mitigate for removal of any native trees in the project area or any trees greater than or equal to 6 inches located within the riparian corridor, the District shall replant trees on site, to the extent possible. The District will identify other suitable locations within the watershed if the project area is not large enough to support the replacement of all trees required for mitigation. If suitable mitigation sites are not located within the watershed, then additional sites will be identified within the County or beyond. All mitigation sites shall be coordinated with and approved by resource agencies. The District may contribute funds to the Oak Woodlands Conservation Fund, as established under subdivision (a) of Section 1363 of the Fish and Game Code to the extent allowed by CDFW. Mitigation ratios shall be developed in coordination with the relevant resource agencies (i.e., CDFW and RWQCB) and the Town of Ross and shall vary according to both the type of tree impacted (i.e., tree species, whether or not the impacted tree is native to California or nonnative, and tree size) and the location of the mitigation planting (i.e., trees planted outside of the watershed may be subject to higher mitigation ratios). Impact mitigation ratios shall be a minimum of 1:1 for nonnative tree species to 3:1 for most native tree species or on a trunk-diameter basis per the Town of Ross Municipal code (i.e., 1:1 trunk diameter for trees in good or excellent condition [e.g., one 21-inch tree removed in good condition shall be replaced by new trees totaling 21-inch trunk diameter], 3:1 trunk diameter for trees in fair or marginal condition [e.g., one 21-inch tree removed in fair condition shall be replaced by new trees totaling 7-inch trunk diameter], and trees in poor condition shall be replaced with tree[s] totaling two inches in truck diameter), whichever is greater. Impact mitigation ratios for oak trees are expected to range from 4:1 (for impacted oak trees that are 5 to 10 inches dbh) to 5:1 (for impacted oak trees that are 10 to 15 inches dbh) and 15:1 (for impacted oak trees greater than 15 inches dbh). The District shall prepare a detailed Tree Mitigation Plan and obtain approval from CDFW for the Tree Mitigation Plan. Replacement oaks shall come from nursery stock grown from locally sourced acorns or from acorns gathered locally, preferably from the same watershed in which they are planted. The trees should be able to survive the last two years of the minimum five-year monitoring period without supplemental irrigation. If at any time the District identifies additional trees that need to be removed, the District shall first get written approval from CDFW, RWQCB, and the Town of Ross and the District shall revise the final plan to include additional tree plantings in accordance with agency-approved mitigation ratios. Based on final total of trees impacted by the project, the plan shall include the details of the number and species of trees to be planted, specific planting locations, maintenance and irrigation needs, monitoring requirements (i.e., five years monitoring plant vigor and growth), reporting requirements, and success criteria to be met before monitoring is concluded (e.g., survival rates, assessment of "good" overall tree vigor, and tree viability without irrigation). The plan shall be submitted to resource agencies for review and approval prior to implementation.	
Impact 3.3-3: The project would not have a substantial adverse effect on state or federally protected wetlands	Potentially Significant	**Mitigation Measure 3.3-1e: Invasive Plant Species Control (see above)**	Less than Significant

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
(including, but not limited to, marsh, vernal pool, and coastal) through direct removal, filling, hydrological interruption, or other means.			
Impact 3.3-4: The project would not 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.	Potentially Significant	**Mitigation Measure 3.3-1d: Avoid Impacts to Special-Status Birds and Mitigation Measure 3.3-2b: Tree Mitigation (see above)**	Less than Significant
Impact 3.3-5: The project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.	Less than Significant	None required.	Less than Significant
Impact 3.3-6: The project would not introduce a new non-native or invasive species of plant or animal into an area.	Potentially Significant	**Mitigation Measure 3.3-6: Invasive Aquatic Species Control.** All heavy equipment that has operated in waters outside of the Corte Madera Creek watershed shall be steam-cleaned and inspected prior to entering the project area. Any in-channel equipment that could be used in other water bodies will be decontaminated following the completion of the project. In addition, all waders, wading boots, block nets, dip nets, and buckets used within Corte Madera Creek will undergo decontamination. Decontamination protocols will include: • Freeze equipment/gear for a minimum of 8 hours at temperatures at 26°F (-3°C) or below. • Soak equipment/gear in a bath of hot water (at least 120°F, 46°C) for 10 minutes. • Soak equipment/gear in a bath of a disinfectant containing quaternary ammonium compounds (QAC) (e.g., Quat 4, Quat 128, Super HDQ Neutral, etc.) for 10 minutes. The QAC-containing disinfectant should be diluted with water at a rate to achieve a minimum active QAC concentration of 0.4%. Six (6) ounces of disinfectant to gallon of water can be used as a disinfectant to water ratio (1:21). After removal from the bath, rinse equipment/gear thoroughly with tap water.	Less than Significant
Cultural Resources			
Impact 3.4-1: The project would not cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5.	No Impact	None required.	No Impact
Impact 3.4-2: The project could cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5.	Potentially Significant	**Mitigation Measure 3.4-2: Inadvertent Discoveries of Archaeological Resources**. If evidence of any subsurface archaeological features or deposits are discovered during construction-related earth-moving activities, all ground-disturbing activity in the area of the discovery shall be halted within 50 feet of the find, and the finds shall be protected until they are examined by a qualified archaeologist. Prehistoric archaeological materials might include obsidian and chert flaked-stone tools (e.g., projectile points, knives, scrapers) or toolmaking debris; culturally darkened soil ("midden") containing heat-affected rocks, artifacts, or shellfish remains; stone-milling equipment (e.g., mortars, pestles, handstones, milling slabs); and battered stone tools, such as hammerstones and pitted stones. Historic-era materials might include building or structure footings and walls and deposits of metal, glass, and/or ceramic refuse. The District shall retain a qualified archaeologist who meets the U.S. Secretary of the Interiors professional qualifications in archaeology to assess the significance of the find and make recommendations for further evaluation and treatment as necessary. A Native American representative from a traditionally and culturally affiliated tribe will be notified and invited to assess the find if the artifacts are of Native American ancestry and determined to be more than an isolated find. If the discovery is in an area below Stadium Way and on lands under the jurisdiction of California State Lands Commission, that agency shall be notified. Any treatments and disposition of any artifacts uncovered under the jurisdiction of the California State Lands Commission must be approved by the California State Lands Commission before the treatment is implemented.	Less than Significant

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		If, after evaluation, a resource is considered a historical resource or unique archaeological resource (as defined in CEQA Guidelines Section 15064.5), or a tribal cultural resource (as defined in PRC Section 21074), all preservation options shall be considered as required by CEQA (see CEQA Guidelines Section 15126.4 and PRC 21084.3), including possible capping, data recovery, mapping, or avoidance of the resource. Treatment that preserves or restores the cultural character and integrity of a tribal cultural resource may include tribal monitoring, culturally appropriate recovery of cultural objects, and reburial of cultural objects or cultural soil. Work in the area may resume, at the direction of the District, upon completion of treatment. An Unanticipated Discoveries Evaluation and Treatment Plan shall be prepared before construction that details the procedures for dealing with unanticipated discoveries, including procedures that would be implemented for such discoveries that cannot be protected in place. The results of the identification, evaluation, and/or data recovery program for any unanticipated discoveries shall be presented in a professional-quality report that details all methods and findings, evaluates the nature and significance of the resources, analyzes and interprets the results, and distributes this information to the public.	
Impact 3.4-3: The project could disturb any human remains, including those interred outside of formal cemeteries.	Less than Significant	None required.	Less than Significant
Energy			
Impact 3.5-1: The project would not result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation.	Less than Significant	None required.	Less than Significant
Impact 3.5-2: The project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency.	Less than Significant	None required.	Less than Significant
Geology and Soils			
Impact 3.6-1: The project could directly or indirectly cause potential substantial adverse effects, including the risk or 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. Refer to Division of Mines and Geology Special Publication 42. ii. Strong seismic ground shaking. iii. Seismic-related ground failure, including liquefaction. iv. Landslides.	Potentially Significant	**Mitigation Measure 3.6-1: Geotechnical Investigation Report** The District shall have a professional geotechnical engineer conduct a geotechnical investigation to evaluate the potential for geotechnical hazards to occur on-site in accordance with the recommendations of the California Geological Survey. The Geotechnical Investigation Report shall provide site-specific recommendations for structures (e.g., floodwalls, fish pools, and stormwater pump station), work areas, and access routes where there is an elevated risk of geologic hazards. The Geotechnical Investigation Report shall be incorporated into the final project design of the retaining walls and floodwalls. The Geotechnical Investigation Report shall specify exact design coefficients that are needed by structural engineers to determine the type and sizing of structural materials. The Geotechnical Investigation Report shall be subject to performance criteria imposed by the California Building Code, as applicable. The Geotechnical Investigation Report shall be prepared by a registered civil engineer or certified engineering geologist and include appropriate measures to minimize seismic hazards and ensure structural safety of the proposed structures.	Less than Significant
Impact 3.6-2: The project would not result in substantial soil erosion or the loss of topsoil.	Less than Significant	None required.	Less than Significant
Impact 3.6-3: The project would be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and	Less than Significant	None required.	Less than Significant

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse.			
Impact 3.6-4: The project would not be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property.	Less than Significant	None required.	Less than Significant
Impact 3.6-5: The project would not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.	Less than Significant	None required.	Less than Significant
Greenhouse Gas Emissions			
Impact 3.7-1: The project would generate greenhouse gas emissions that would have a less-than significant impact on the environment.	Less than Significant	None required.	Less than Significant
Impact 3.7-2: The project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.	Less than Significant	None required.	Less than Significant
Impact 3.7-3: The project would not significantly alter air movement, moisture, or temperature, or cause any change in climate.	Less than Significant	None required.	Less than Significant
Hazards and Hazardous Materials			
Impact 3.8-1: The project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials or reasonably foreseeable upset or accident conditions involving the release of hazardous materials into the environment, including, but not limited to oils, pesticides, chemicals, or radiation.	Less than Significant	None required.	Less than Significant
Impact 3.8-2: The project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.	Less than Significant	None required.	Less than Significant
Impact 3.8-3: The project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.	Less than Significant	None required.	Less than Significant
Impact 3.8-4: The project would not create any health hazard or potential health hazard, expose people to existing sources of potential health hazards, or result in unsafe conditions for employees, visitors, or students.	Less than Significant	None required.	Less than Significant

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Hydrology and Water Quality			
Impact 3.9-1: The project could violate water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality; or result in discharge of pollutants into surface or ground waters or other alteration of surface or ground water quality (e.g., temperature, dissolved oxygen or turbidity).	Potentially Significant	**Mitigation Measure 3.9-1: Conduct Soil/Sediment Testing.** Excavated and exposed soil and sediment at risk of erosion or mobilization will be tested for contaminants of potential concern (COPCs) for concentrations above SFBRWQCB's Environmental Screening Levels (ESLs) for shallow soils, where groundwater is not a drinking water source, for commercial land use. Additional sampling results shall be compared to the Total Threshold Limit Concentrations (TTLCs) specified in California Code of Regulations (CCR) Title 22 Chapter 11 for hazardous waste identification. Soils will be tested prior to initiation of excavation activities to determine appropriate treatment, storage, and suitability for on-site onsite reuse, landfill disposal, or hazardous waste disposal.	Less than Significant
Impact 3.9-2: The project would not 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; ii. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite; iii. create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or iv. impede or redirect flood flows.	Less than Significant	None required.	Less than Significant
Impact 3.9-3: The project would not risk release of pollutants as a result of project inundation due to tsunami	Less than Significant	None required.	Less than Significant
Impact 3.9-4: The project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.	Less than Significant	None required.	Less than Significant
Impact 3.9-5: The project would not expose people or property to flooding hazards	Less than Significant	None required.	Less than Significant
Noise			
Impact 3.10-1: The project could result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.	Potentially Significant	**Mitigation Measure 3.10-1: Construction Noise Reduction Plan**. The District would adhere to this requirement and develop a construction noise reduction plan in compliance with local regulations to include measures to reduce construction noise impacts. These measures shall include, but not be limited to, the following: 1. Distribute to the potentially affected residences and other sensitive receptors within 200 feet of project construction boundary a "hotline" telephone number, which shall be attended during active construction working hours, for use by the public to register complaints. The distribution shall identify a noise-disturbance coordinator who would be responsible for responding to any local complaints about construction noise. The disturbance coordinator would determine the cause of the noise complaints and institute feasible actions warranted to correct the problem. All	Less than Significant

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		complaints shall be logged noting date, time, complainant's name, nature of complaint, and any corrective action taken. The distribution shall also notify residents adjacent to the project area of the construction schedule. 2. All construction equipment shall have intake and exhaust mufflers recommended by the manufacturers thereof. Further, pavement breakers and jackhammers shall also be equipped with acoustically attenuating shields or shrouds recommended by the manufacturers thereof. In lieu of or in the absence of manufacturers' recommendations, the Director of Public Works shall have the authority to prescribe such means of accomplishing maximum noise attenuation as he deems to be in the public interest, considering the available technology and economic feasibility. 3. Maintain maximum physical separation between noise sources (construction equipment) and sensitive noise receptors. Separation may be achieved by locating stationary equipment to minimize noise impacts on the community. 4. Impact tools (e.g., jack hammers) used during construction activities will be hydraulically or electrically powered where feasible to avoid noise associated with compressed air exhaust from pneumatically powered tools. Where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used. 5. Use construction noise barriers such as paneled noise shields, barriers, or enclosures adjacent to noisy stationary equipment such as generators, air compressors, jackhammers, etc. Noise control shields shall be made featuring a solid panel and a weather-protected, sound-absorptive material on the construction-activity side of the noise shield.	
Impact 3.10-2: The project would not result in generation of excessive groundborne vibration or groundborne noise levels.	Potentially Significant	**Mitigation Measure 3.10-2: Vibration Reduction Measures.** The District shall design the project to avoid intense vibration activities within five feet of the structures at Frederick Allen Park (e.g., avoid use of large bulldozer, jackhammer, hoe ram, or loaded trucks). If intense vibration generating activities cannot be avoided in proximity to structures, vibration monitoring shall be conducted during grading and floodwall construction activities in Frederick Allen Park to confirm vibration levels do not exceed vibration thresholds at the nearest receptors. If vibration levels approach the threshold of 0.3 PPV at the nearest structure, then construction practices shall be modified (i.e., use smaller types of construction equipment, operate the equipment in a manner to reduce vibration, or use alternate construction methods) so that the threshold is not exceeded.	Less than Significant
Public Services			
Impact 3.11-1: The project would not 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 thepublic services. i. Fire protection ii. Police protection iii. Schools iv. Parks v. Other public facilities	Less than Significant	None required.	Less than Significant
Impact 3.11-2: The project would not result in maintenance of public facilities, including roads.	Less than Significant	None required.	Less than Significant
Recreation			
Impact 3.12-1: The project would not increase the use of existing neighborhood and regional parks or other	Less than Significant	None required.	Less than Significant

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.			
Impact 3.12-2: The project would include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment.	Less than Significant	None required.	Less than Significant
Impact 3.12-3: The project could affect existing recreational opportunities.	Potentially Significant	**Mitigation Measure ~~3.1-2~~ 3.1-3: Large Tree Planting (see Aesthetics and Visual Resources above)** **Mitigation Measure 3.12-3: Temporary Shade Structures.** The District shall coordinate with the Town of Ross to select the type and location for installation of temporary shade structures in Frederick Allen Park. The temporary shade structures shall be located along the edge of the Bike Route 20 multi-use path and at seating areas as needed to provide shade during the vegetation establishment period. The temporary shade structures shall be removed when the tree canopy has sufficiently established to provide afternoon shade of the pathway and as determined through coordination with the Town of Ross. The District will submit a draft plan for the shade structures to the Town of Ross no less than 60 days prior to construction. **Mitigation Measure 3.14-1: Traffic Management (see Transportation and Circulation below)**	Less than Significant
Transportation and Circulation			
Impact 3.13-1: The project could conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities.	Potentially Significant	**Mitigation: Mitigation Measure 3.13-1: Traffic Management** Prior to initiation of construction, the Project contractor(s) shall use a qualified traffic engineer to prepare a Traffic Management Plan (TMP). The TMP shall be developed on the basis of detailed design plans. The TMP shall be reviewed and approved by the District and agencies with jurisdiction over roadways affected by project construction activities prior to construction. Once approved, the TMP shall be incorporated into the contract documents specification. The TMP shall include, but not necessarily be limited to, the elements listed below: • Develop a detour plan for bicycle and pedestrian traffic that shows the approach to reroute traffic on Bike Route 20 to Poplar/Kent Avenue from the College of Marin Parking lot to Ross Common. • Post temporary Bike Route 20 detour and associated signage that meets all the accessibility requirements stated under the Americans with Disabilities Act and CBC Title 24. • Post signs providing public notice of detours at least ~~14~~ 20 days prior to temporary bike route closure. • Provide flaggers at the tennis courts within Frederick Allen Park to provide safe pedestrian access to the tennis courts. • Control and monitor construction-vehicle movements by enforcing standard construction specifications through periodic on-site inspections. • Install traffic-control devices where traffic conditions warrant, as specified in the applicable jurisdiction's standards (e.g., the California Manual on Uniform Traffic Control Devices; Part 6: Temporary Traffic Control); flaggers would be used, when warranted, to control vehicle movements. • Implement a public information program to notify interested parties of the impending construction activities using means such as print media, radio, and/or web-based messages and information. • Comply with roadside safety protocols to reduce the risk of accidents. • Maintain access for emergency vehicles at all times. Provide advance notification to local police, fire, and emergency service providers of the timing, location, and duration of construction activities that could affect the movement of emergency vehicles on area roadways. • Store all equipment and materials in designated contractor staging areas on or adjacent to the worksite in such a manner as to minimize obstruction to traffic.	Less than Significant

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact 3.13-2: The project would not conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b).	Less than Significant	None required.	Less than Significant
Impact 3.13-3: The project would not substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).	Potentially Significant	**Mitigation Measure 3.13-1: Traffic Management (see above)**	Less than Significant
Impact 3.13-4: The project would not result in inadequate emergency access.	Less than Significant	None required.	
Tribal Cultural Resources			
Impact 3.14-1: The project could cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: i. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k); or ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	Potentially Significant	**Mitigation Measure 3.4-2: Inadvertent Discoveries of Archaeological Resources (see Cultural Resources above)**	Less than Significant
Utilities and Service Systems			
Impact 3.15-1: The project would not require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.	Less than Significant	None required.	Less than Significant
Impact 3.15-2: The project would have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years.	Less than Significant	None required.	Less than Significant

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact 3.15-3: The project would not result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments.	Less than Significant	None required.	Less than Significant
Impact 3.15-4: The project would not 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.	Less than Significant	None required.	Less than Significant
Impact 3.15-5: The project would comply with federal, state, and local management and reduction statutes and regulations related to solid waste.	Less than Significant	None required.	Less than Significant
Agriculture and Forestry Resources, Mineral Resources, Land Use and Planning, Population and Housing, Wildfire, and Socioeconomics			
Impact 3.16-1: The project would not physically divide an established community.	Less than Significant	None required.	Less than Significant
Impact 3.16-2: The project would not 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.	No Impact	None required.	No Impact
Impact 3.16-3: The project would not result in substantial alteration of the character or functioning of the community or present or planned use of an area.	Less than Significant	None required.	Less than Significant
Impact 3.16-4: The project would not induce substantial unplanned population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure).	Less than Significant	None required.	Less than Significant

ES.11 References

geomorphDESIGN. (2020a, May 27). Unit 4 - Corte Madera Creek Long Profile.

geomorphDESIGN. (2020b, May 6). Corte Madera Creek Lower College of Marin Reach Concrete Channel Removal Project 30% Design Plans.

GHD. (2020a, August 28). Project Component Maps - CAD - 08282020.

Golden Gate National Parks Conservancy. (2018, June). Orthoimagery of the Marin County Imagery Study Area. *Marin_County_Mosaic.sid*.

Stetson Engineers, Inc. (2020, February). Ross Valley Sanitary District - Civil Plans.

Tele Atlas North America, Inc. (2019). U.S. and Canada Detailed Streets GIS dataset. *ESRI® Data & Maps: StreetMap™*. ESRI.

Tele Atlas North America, Inc. (2020). U.S. and Canada Detailed Streets GIS dataset. *ESRI® Data & Maps: StreetMap™*. ESRI.

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