Appendix G

Mitigation Monitoring and Reporting Program

Mitigation Monitoring and Reporting Program

Introduction

The Marin County Flood Control and Water Conservation District (District) is the lead agency implementing the California Environmental Quality Act (CEQA) environmental document for the Corte Madera Creek Flood Risk Management Project, Phase 1 (project). The primary goal of the project is to reduce the risk of flooding to provide further protection for life and property along Corte Madera Creek. The District would meet this goal by implementing the project, which would increase creek capacity to allow a greater volume of water to flow in-channel, and enhance creek habitat. The District prepared an Environmental Impact Report (EIR) to evaluate the potential for the project to result in significant adverse effects on the physical environment.

This Mitigation, Monitoring, and Reporting Program (MMRP) has been prepared based upon the findings of the EIR and lists the project-level mitigation and minimization measures recommended in the Draft EIR.

This MMRP is designed to fulfill CEQA Guidelines Section 21081.6(a), which requires public agencies to adopt a reporting or monitoring program whenever a project or program is approved that includes mitigation measures identified in an environmental document for which the agency makes a finding pursuant to CEQA Section 21081(a)(1). Therefore, this MMRP must be adopted when the District makes a final decision on the project.

Table F-1 lists each of the EIR mitigation measures, and includes the following categories for monitoring and reporting.

1. **Implemented By.** The name of the entity responsible for implementing the mitigation measure.
2. **Implementation Timing.** Most measures are to be implemented prior to, during, or immediately after project construction.
3. **Location.** The area(s) where the mitigation applies
4. **Performance Criteria.** The criteria required to ensure the effectiveness of the mitigation measure in mitigating the impact.
5. **Monitored By.** The name of the person who is responsible for monitoring implementation of the mitigation measure. At this time, the field is blank – it will be completed during implementation.
6. **Verified By.** The signature of the responsible person and date compliance is verified. At this time, the field is blank – it will be completed during implementation.

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Table G-1 Mitigation Measures

Significant Environmental Impact	Mitigation Measure	Applicable Location	Performance Criteria	Implemented By	Implementation Timing	Monitored By	Verified By (Date and Signature)
Aesthetics and Visual Resources							
Impact 3.1-3: The project would substantially degrade the existing visual character or quality of public views of the site and its surroundings	**Mitigation Measure 3.1-3: Large Tree Planting.** The District will integrate large box trees into the final planting plan and design for Frederick Allen Park to the extent feasible and ecologically appropriate for the proposed species. The final planting plan will be provided to the Town of Ross for review and comment no less than 90 days prior to landscaping.	• Frederick Allen Park	• Planting plan submitted to Town of Ross for review • Large box trees are planted where feasible	• Marin County Flood Control and Water Conservation District (District) • Contractor	• Prior to construction • During construction		
Air Quality							
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.	**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.	• Unit 4 and Frederick Allen Park	• BAAQMD fugitive dust control measures are implemented	• The District • Contractor	• During construction		
Impact 3.2-3: The project would not expose sensitive receptors to substantial pollutant concentrations.	**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	• Entire project area	• All off-road diesel-powered equipment (more than 25 horsepower) is equipped with engines that achieve U.S. Environmental Protection Agency Tier 3 and Diesel	• The District • Contractor	• During construction		

Significant Environmental Impact	Mitigation Measure	Applicable Location	Performance Criteria	Implemented By	Implementation Timing	Monitored By	Verified By (Date and Signature)
	stringent standards for all phases of construction except the Lower College of Marin concrete channel removal.		particulate Filter level 3 emissions standards or more stringent.				
			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.	**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	• Unit 4; Frederick Allen Park; Unit 2 and 3 floodwalls; stormwater pump station; and lower College of Marin	• Botanical surveys conducted according to CDFW protocols • Avoidance areas Flagged or marked • Compensatory mitigation at a minimum 1:1 ratio for unavoidable impacts on special-status plants or natural communities	• The District • Contractor	• Prior to construction • During construction		

Significant Environmental Impact	Mitigation Measure	Applicable Location	Performance Criteria	Implemented By	Implementation Timing	Monitored By	Verified By (Date and Signature)
	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 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	• Area where in-channel work requires dewatering	• Use approved techniques for dewatering and fish relocation • Implement measures to protect aquatic special-status species	• The District • Contractor	• During construction		

Significant Environmental Impact	Mitigation Measure	Applicable Location	Performance Criteria	Implemented By	Implementation Timing	Monitored By	Verified By (Date and Signature)
	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	• Entire project area	• All construction personnel receive environmental training by a qualified biologist	• The District • Contractor	• Prior to construction • During construction		

Significant Environmental Impact	Mitigation Measure	Applicable Location	Performance Criteria	Implemented By	Implementation Timing	Monitored By	Verified By (Date and Signature)
	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 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.	• Unit 4; Frederick Allen Park; Unit 2 and 3 floodwalls; stormwater pump station; lower College of Marin	• Implement impact-avoidance work windows or conduct pre-construction nesting bird surveys and establish construction buffer zone for impact avoidance	• The District • Contractor	• During construction		
	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	• Entire project area	• Vehicles and equipment are washed prior to arriving on site • Only weed-free seed and revegetation material are used • Nursery certified to implement practices to prevent spread of SOD • Tree removal includes practices to avoid spread of SOD	• The District • Contractor	• During construction		

Significant Environmental Impact	Mitigation Measure	Applicable Location	Performance Criteria	Implemented By	Implementation Timing	Monitored By	Verified By (Date and Signature)
	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 cofferdam	• Conduct inspection to determine if tidal water is	• The District • Contractor	• During construction		

Significant Environmental Impact	Mitigation Measure	Applicable Location	Performance Criteria	Implemented By	Implementation Timing	Monitored By	Verified By (Date and Signature)
	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 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.		present in area of upstream cofferdam • Initiate fish removal herding effort if tidal water present in area of cofferdam installation				
	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	• Lower College of Marin	• Flag potential salt marsh harvest mouse habitat • Qualified Biological Monitor supervises vegetation removal within 50 feet of wetland habitat • Stop work and notify USFW and CDFW if mouse of any species is observed • Install exclusion fencing • Qualified Biological Monitor inspects the exclusion fencing prior to the start of daily construction activities • Cap pipes or similar objects in mouse habitat • Schedule work to avoid extreme high tides	• The District • Constructor • Qualified Biological Monitor	• Prior to construction • During construction • After construction		

Significant Environmental Impact	Mitigation Measure	Applicable Location	Performance Criteria	Implemented By	Implementation Timing	Monitored By	Verified By (Date and Signature)
	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.	**Mitigation Measure 3.3-1a: Avoid Special-Status Plants and Sensitive Natural Communities (see above)**	• (see above)	• (see above)	• The District • Contractor	• Prior to construction • During construction		
	Mitigation Measure 3.3-1e: Invasive Plant Species Control (see above)	• (see above)	• (see above)	• The District • Contractor	• During construction		
	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 monitoring shall be conducted if the revegetated areas do not meet the performance criteria in year five; any replacement	• Unit 4 • Frederick Allen Park • Lower College of Marin	• Habitat Restoration Monitoring Plan implemented to restore impacted native riparian habitat and native vegetation • Trees replaced at a minimum ratio of 1:1 for nonnative trees and 3:1 for native trees • Planted trees and shrubs meet a minimum of 85% survival after 5 years • Wetland and waters are replaced at a minimum ratio of 1:1 • Annual monitoring reports throughout the monitoring period	• The District • Contractor	• Prior to construction • During construction • After construction		

Significant Environmental Impact	Mitigation Measure	Applicable Location	Performance Criteria	Implemented By	Implementation Timing	Monitored By	Verified By (Date and Signature)
	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 CDFW. 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 CDFW 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	• All areas where tree removal is required	• Tree Mitigation Plan implemented • Tree removal plan complies with Town of Ross and Marin County's tree removal requirements and CDFW tree replacement ratio requirements • CDFW approval for tree mitigation plan	• The District • Contractor	• Prior to construction • During construction • After construction		

Significant Environmental Impact	Mitigation Measure	Applicable Location	Performance Criteria	Implemented By	Implementation Timing	Monitored By	Verified By (Date and Signature)
	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 (including, but not limited to, marsh, vernal pool, and coastal) through direct removal, filling, hydrological interruption, or other means.	**Mitigation Measure 3.3-1e: Invasive Plant Species Control (see above)**	• See above	• See above	• The District • Contractor	• During construction		
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.	**Mitigation Measure 3.3-1d: Avoid Impacts to Special-Status Birds and Mitigation Measure 3.3-2b: Tree Mitigation (see above)**	• See above	• See above	• The District • Contractor	• During construction		
Impact 3.3-6: The project would not introduce a new non-native or invasive species of plant or animal into an area.	**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	• Entire project area	• All heavy equipment that has operated in waters outside of the Corte Madera Creek watershed	• Contractor	• During construction		

Significant Environmental Impact	Mitigation Measure	Applicable Location	Performance Criteria	Implemented By	Implementation Timing	Monitored By	Verified By (Date and Signature)
	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.		is inspected prior to entering the project area • In-channel equipment that could be used in other water bodies is decontaminated according to decontamination protocols				
Cultural Resources							
Impact 3.4-2: The project could cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5.	**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	• Entire project area • Area below Stadium Way	• Stop work within 50 feet of a find • Finds are protected and examined by qualified archaeologist • Implement specified procedures to avoid adverse effects to cultural resources • Native American representative is notified and invited to assess finds of Native American ancestry • California State Lands Commission is notified of discovery within the jurisdiction of State Lands Commission	• This District • Qualified archaeologist • Contractor • Native American representative • State Lands Commission	• During construction		

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	Commission must be approved by the California State Lands Commission before the treatment is implemented. 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. 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.						
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.	**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.	• Entire project area	• Conduct site-specific geotechnical investigation • Implement geotechnical recommendations to address risk of seismicity	• The District • Geotechnical engineer • Contractor	• Prior to construction • During construction		
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	**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	• Frederick Allen Park • Unit 2 Lower College of Marin	• Test exposed soil and sediment • Remove/immobilize contaminated sediments	• The District • Contractor	• During construction		

Significant Environmental Impact	Mitigation Measure	Applicable Location	Performance Criteria	Implemented By	Implementation Timing	Monitored By	Verified By (Date and Signature)
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).	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.		• Comply with water quality standards or waste discharge requirements				
		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.	**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 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	• Unit 4 • Frederick Allen Park • Stormwater Pump Station	• Noise reduction measures implemented to reduce noise levels • Nearby residents notified regarding noise activities and impacts	• The District • Contractor	• Prior to construction • During construction		

Significant Environmental Impact	Mitigation Measure	Applicable Location	Performance Criteria	Implemented By	Implementation Timing	Monitored By	Verified By (Date and Signature)
	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, ect. 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.	**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.	• Frederick Allen Park adjacent to commercial buildings	• Vibration activities and impact avoidance incorporated in project design • Vibration monitoring conducted according to the measure • Construction practices modified as needed to avoid exceeding the threshold	• The District • Contractor	• Prior to construction • During construction		
Recreation							
Impact 3.12-3: The project could affect existing recreational opportunities.	**Mitigation Measure 3.1-2: Large Tree Planting (see Aesthetics and Visual Resources above)**	• See above	• See above	• The District • Contractor	• Prior to construction • During construction		
	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.	• Frederick Allen Park	• Coordinate with Town of Ross on plan for shade structures • Install temporary shade structure along pathway and at seating areas according to the plan	• The District • Town of Ross • Constructor	• Prior to construction • During construction		
	Mitigation Measure 3.13-1: Traffic Management (see Transportation and Circulation below)	• See below	• See below	• Construction • Qualified traffic engineer	• Prior to construction • During construction		
Transportation and Circulation							
Impact 3.13-1: The project could conflict with a program plan, ordinance or policy	**Mitigation: Mitigation Measure 3.13-1: Traffic Management**	• Entire project area	• TMP prepared	• Construction	• Prior to construction		

Significant Environmental Impact	Mitigation Measure	Applicable Location	Performance Criteria	Implemented By	Implementation Timing	Monitored By	Verified By (Date and Signature)
addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities.	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 signs providing public notice of detours at least 14 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.		• Notified public regarding construction activities and traffic impacts • Traffic control measures including detours implemented • Traffic control devices installed • Comply with roadside safety protocols • Emergency vehicle access maintained at all times • Equipment stored in designated areas to avoid obstructing traffic	• Qualified traffic engineer	• During construction		
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).	**Mitigation Measure 3.13-1: Traffic Management (see above)**	• Frederick Allen Pack • Stormwater Pump Station • Unit 3 Dewatering	• Implement traffic measures to detour or redirect traffic around the work area	• Construction • Qualified traffic engineer	• Prior to construction • During construction		

Significant Environmental Impact	Mitigation Measure	Applicable Location	Performance Criteria	Implemented By	Implementation Timing	Monitored By	Verified By (Date and Signature)
Tribal Cultural Resources							
Impact 3.14-1: The project would not 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.	**Mitigation Measure 3.4-2: Inadvertent Discoveries of Archaeological Resources (see Cultural Resources Above)**	• Entire project area	• Stop work within 50 feet of uncovered archaeological resources • Native American representative is notified and invited to assess finds of Native American ancestry • Treat tribal cultural resources according to PRC 21084	• This District • Qualified archaeologist • Contractor • Native American representative • State Lands Commission	• During construction		