MITIGATION MONITORING AND REPORTING PROGRAM SUMMARY TABLE

The following mitigation monitoring and reporting program (MMRP) summary table includes the best management practices (BMPs) and mitigation measures identified in the San Mateo Resource Conservation District (SMRCD) Butano Creek Channel Reconnection and Resilience Project Initial Study/Mitigated Negative Declaration (IS/MND). For each BMP and mitigation measure, this table identifies monitoring and reporting actions that shall be carried out, the party responsible for implementing these actions, and the monitoring schedule. This table also includes a column where responsible parties can check off monitoring and reporting actions as they are completed. It is the responsibility of the Contractor to ensure that actions required for all of the mitigation measures listed herein are included in the project plans and specifications. It is the responsibility of the SMRCD to review and confirm that all of the mitigation measure actions described herein are in the project plans and specifications.

Acronyms and Abbreviations

BAAQMD Bay Area Air Quality Management District

BMP best management practice

CARB California Air Resources Board

CDFW California Department of Fish and Wildlife
CEQA California Environmental Quality Act

CRHR California Register of Historical Resources

CRLF California red-legged frog

DR design review

IS/MND Initial Study/Mitigated Negative Declaration

MLD most likely descendant

MMRP mitigation monitoring and reporting program
NAHC Native American Heritage Commission
NMFS National Marine Fisheries Service

NOx nitrogen oxides

NTU nephelometric turbidity unit
PRC Public Resources Code
SFGS San Francisco garter snake

SMRCD San Mateo Resource Conservation District

USFWS U.S. Fish and Wildlife Service

WTP western pond turtle

YOY young-of-year

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	BMP or Mitigation Measure	Contractor Responsibility	SMRCD Responsibility	Monitoring Schedule	Completion Date and Initials
Best Ma	nagement Practices				
BMP-1	Non-Hazardous Materials Berm and cover stockpiles of sand, dirt or other construction material with tarps when rain is forecast or if not actively being used within 14 days. Use (but don't overuse) reclaimed water for dust control.	Include non-hazardous materials BMP in the contract specifications. Confirm measure is implemented.	1. Confirm BMP is incorporated in the contract specifications. 2. Ensure corrective action if measure gets improperly implemented.	During development of plans and specifications During construction	
BMP-2	 Hazardous Materials Label all hazardous materials and hazardous wastes (such as pesticides, paints, thinners, solvents, fuel, oil, and antifreeze) in accordance with city, county, state and federal regulations. Store hazardous materials and wastes in water tight containers, store in appropriate secondary containment, and cover them at the end of every work day or during wet weather or when rain is forecast. Follow manufacturer's application instructions for hazardous materials and be careful not to use more than necessary. Do not apply chemicals outdoors when rain is forecast within 24 hours. Arrange for appropriate disposal of all hazardous wastes. 	Include hazardous materials BMP in the contract specifications. Confirm measure is implemented.	1. Confirm BMP is incorporated in the contract specifications. 2. Ensure corrective action if measure gets improperly implemented.	1. During development of plans and specifications 2. During construction	
ВМР-3	 Waste Management Cover waste disposal containers securely with tarps at the end of every work day and during wet weather. Check waste disposal containers frequently for leaks and to make sure they are not overfilled. Never hose down a dumpster on the construction site. Clean or replace portable toilets and inspect them frequently for leaks and spills. 	1. Include waste management BMP in the contract specifications. 2. Confirm measure is implemented.	1. Confirm BMP is incorporated in the contract specifications. 2. Ensure corrective action if measure gets improperly implemented.	During development of plans and specifications During construction	

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	 Dispose of all wastes and debris properly. Recycle materials and wastes that can be recycled (such as asphalt, concrete, aggregate base materials, wood, gyp board, pipe, etc.) Dispose of liquid residues from paints, thinners, solvents, glues, and cleaning fluids as hazardous waste. 				
BMP-4	 Construction Entrances and Perimeter Establish and maintain effective perimeter controls and stabilize all construction entrances and exits to sufficiently control erosion and sediment discharges from site and tracking off site. Sweep or vacuum any street tracking immediately and secure sediment source to prevent further tracking. Never hose down streets to clean up tracking. 	Include construction entrances and perimeter BMP in the contract specifications. Confirm measure is implemented.	 Confirm BMP is incorporated in the contract specifications. Ensure corrective action if measure gets improperly implemented. 	During development of plans and specifications During construction	
BMP-5	 Maintenance and Parking Designate an area, fitted with appropriate BMPs, for vehicle and equipment parking and storage. Perform major maintenance, repair jobs, and vehicle and equipment washing off site. If refueling or vehicle maintenance must be done onsite, work in a bermed area away from storm drains and over a drip pan big enough to collect fluids. Recycle or dispose of fluids as hazardous waste. If vehicle or equipment cleaning must be done on-site, clean with water only in a bermed area that will not allow rinse water to run into gutters, streets, storm drains, or surface waters. Do not clean vehicle or equipment on-site using soaps, solvents, degreasers, steam cleaning equipment, etc. 	Include maintenance and parking BMP in the contract specifications. Confirm measure is implemented.	1. Confirm BMP is incorporated in the contract specifications. 2. Ensure corrective action if measure gets improperly implemented.	1. During development of plans and specifications 2. During construction	
ВМР-6	Spill Prevention and Control Reep spill cleanup materials (rags, absorbents, etc.) available at the construction site at all times.	Include spill prevention and control BMP in the contract specifications.	Confirm BMP is incorporated in the contract specifications.	1. During development of plans and specifications	

	BMP or Mitigation Measure	Contractor Responsibility	SMRCD Responsibility	Monitoring Schedule	Completion Date and Initials
	 Inspect vehicles and equipment frequently for and repair leaks promptly. Use drip pans to catch leaks until repairs are made. Clean up spills or leaks immediately and dispose of cleanup materials properly. Do not hose down surfaces where fluids have spilled. Use dry cleanup methods (absorbent materials, cat litter, and/or rags). Sweep up spilled dry materials immediately. Do not try to wash them away with water, or bury them. Clean up spills on dirt areas by digging up and properly disposing of contaminated soil. Report significant spills immediately. You are required by law to report all significant releases of hazardous materials, including oil. To report a spill: 1) Dial 911 or your local emergency response number, 2) Call the Governor's Office of Emergency Services Warning Center, (800) 852-7550 (24 hours). 	2. Confirm measure is implemented and that all spills are implemented in accordance with the measure. Report any significant spills to the local emergency responder and Governor's Office of Emergency Services Warning Center.	2. Ensure corrective action if measure gets improperly implemented.	2. During construction	
BMP-7	Sediment Control	1. Include sediment	1. Confirm BMP is	1. During	
,	 Protect storm drain inlets, gutters, ditches, and drainage courses with appropriate BMPs, such as gravel bags, fiber rolls, berms, etc. Keep excavated soil on the site where it will not collect into the street. Transfer excavated materials to dump trucks on the site, not in the street. 	control BMP in the contract specifications. 2. Confirm measure is implemented.	incorporated in the contract specifications. 2. Ensure corrective action if measure gets improperly implemented.	development of plans and specifications 2. During construction	
BMP-8	Containment Description: Containment measures are intended to be deployed in the event of a spill of hazardous chemicals, fuels,	Include containment BMP in the contract specifications.	Confirm BMP is incorporated in the contract	1. During development of plans and	
	oils, cement, and other liquids or powders to prevent pollution of water, air, or soil resources. Containment measures may include absorbent materials to soak up spills,	2. Confirm measure is implemented.	specifications. 2. Ensure corrective action if measure	specifications 2. During construction	

	BMP or Mitigation Measure	Contractor Responsibility	SMRCD Responsibility	Monitoring Schedule	Completion Date and Initials
	tools such as shovels or hoes to dig small emergency containments, tarps to cover dry spills, etc. Applications: Containment measures should be available at all construction sites and at any time that chemicals are to be used near a watercourse. BMP Removal: Handle chemicals and absorbents in accordance with instructions from fire protection staff, Environmental Health officials and/or manufacturer. Spill Prevention and Response: Fluid spills shall not be hosed down. The Contractor shall use dry cleanup methods (absorbent materials, cat litter, and/or rags) whenever possible. If water must be used, the Contractor will be required to collect the water and spilled fluids and dispose of it as hazardous waste. Spilled fluids shall not be allowed to soak into the ground or enter into any watercourse. Spilled dry materials shall be swept up immediately. Dry spills shall not be washed down or buried. Spills on dirt areas should be removed by digging up and properly disposing of contaminated soil. Significant spills shall be reported to San Mateo County Environmental Health Services Division, or other emergency office as warranted, immediately and documented using the San Mateo Countywide Water Pollution Prevention Program (SMCWPPP) Construction Site Inspection Report form.		gets improperly implemented.		
ВМР-9	Equipment Maintenance & Fueling Description: Equipment maintenance and fueling is frequently required at construction sites. Proper equipment maintenance and fueling procedures will ensure that no fluids are discharged into watercourses, and that any spills are promptly cleaned up, reported (if necessary) and properly disposed of. General Requirements: A separate area should be designated for equipment maintenance and fueling, away	Include equipment maintenance and fueling BMP in the contract specifications. Confirm measure is implemented.	1. Confirm BMP is incorporated in the contract specifications. 2. Ensure corrective action if measure gets improperly implemented.	During development of plans and specifications During construction	

	BMP or Mitigation Measure	Contractor Responsibility	SMRCD Responsibility	Monitoring Schedule	Completion Date and Initials
	from any slopes, watercourses or drainage facilities. Where equipment is expected to be stored for more than a few days, cleanup materials and tools should be kept nearby and available for immediate use (refer to BMP-8, "Containment"). Equipment should not be stored in areas that will potentially drain to watercourses or drainage facilities. If equipment must be stored in areas with the potential to generate runoff, drip pans, berms, sandbags or absorbent booms should be employed to contain any leaks or spills. Equipment should be inspected daily for leaks or damage and promptly repaired. Spill Prevention and Response: Fluid spills shall not be hosed down. The Contractor shall use dry cleanup methods (absorbent materials, cat litter, and/or rags) whenever possible. If water must be used, the Contractor will be required to collect the water and spilled fluids and dispose of it as hazardous waste. Spilled fluids shall not be allowed to soak into the ground or enter into any watercourse.				
	Spilled dry materials shall be swept up immediately. Dry spills shall not be washed down or buried. Spills on dirt areas should be removed by digging up and properly disposing of contaminated soil. Significant spills shall be reported to San Mateo County Environmental Health Services Division, or other emergency office as warranted, immediately and documented using the SMCWPPP Construction Site Inspection Report form.				
BMP-10	Timing of Work In general, construction and ongoing maintenance activities that remove vegetative soil cover and/or potentially release sediment into stormwater will be conducted during the dry season (June 1 and October 15). Activities that are subject to permit requirements will be conducted during the period authorized by the permits.	 Include timing of work BMP in the contract specifications. Confirm measure is implemented. 	1. Confirm BMP is incorporated in the contract specifications. 2. Ensure corrective action if measure	During development of plans and specifications During construction	

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			gets improperly implemented.		
BMP-11	 Trees Employ the regulations of the Significant Tree Ordinance to protect significant trees (38 inches or more in circumference) which are located in urban areas zoned Design Review (DR). Employ the regulations of the Heritage Tree Ordinance to protect unique trees (including oaks and redwoods) which meet specific size and locational requirements. Comply with Local Coastal Plan (LCP) policies regarding protection of Significant Trees in scenic corridors and obtain appropriate authorizations for removal of such trees. Prohibit the removal of living trees in the Coastal Zone with a trunk circumference of more than 55 inches measured 4 ½ feet above the average surface of the ground, except as may be permitted for development under the regulations of the LCP, or permitted under the Timber Harvesting Ordinance, or for reason of danger to life or property. Allow the removal of trees which are a threat to public health, safety, and welfare. 	Include trees BMP in the contract specifications. Confirm measure is implemented.	1. Confirm BMP is incorporated in the contract specifications. 2. Ensure corrective action if measure gets improperly implemented.	During development of plans and specifications During construction	
BMP-12	Dust Management Controls The SMRCD will implement the Bay Area Air Quality Management District (BAAQMD) Basic Dust Control Measures. Current measures stipulated by the BAAQMD Guidelines include the following: 1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day. 2. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.	 Include dust management controls BMP in the contract specifications. Confirm measure is implemented. Ensure that a publicly visible sign with the telephone number of the SMRCD 	 Confirm BMP is incorporated in the contract specifications. Ensure corrective action if measure gets improperly implemented. Respond to any dust complaints 	During development of plans and specifications During construction	

	BMP or Mitigation Measure	Contractor Responsibility	SMRCD Responsibility	Monitoring Schedule	Completion Date and Initials	
	3. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day or more in accordance with the County Department of Public Works' encroachment permit requirements. The use of dry power sweeping is prohibited. 4. All vehicle speeds on unpaved roads shall be limited to 15	project manager is posted onsite.	received from the public.			
	mph. 5. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.	nall be	hall be	hall be	hall be	
	6. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.					
	7. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified visible emissions evaluator.					
	8. Post a publicly visible sign with the telephone number and person to contact at the SMRCD regarding dust complaints. Following the review of any dust complaints, the SMRCD project manager shall respond and take corrective action within 48 hours.					
BMP-13	Staging and Access Staging, access, and parking areas will be located outside of sensitive habitats to the extent feasible.	Include staging and access BMP in the contract specifications. Confirm measure is implemented.	Confirm BMP is incorporated in the contract specifications. Ensure corrective action if measure	1. During development of plans and specifications		

	BMP or Mitigation Measure	Contractor Responsibility	SMRCD Responsibility	Monitoring Schedule	Completion Date and Initials
BMP-14	Area of Disturbance Areas of disturbance will be limited to the smallest footprint	Include area of disturbance BMP in the	gets improperly implemented. 1. Confirm BMP is incorporated in the	During construction During development	
	necessary. The designated work area around Butano Creek will be clearly identified in the field using highly visible material, and work will not be conducted outside this area.	contract specifications. 2. Confirm measure is implemented.	contract specifications. 2. Ensure corrective action if measure gets improperly implemented.	of plans and specifications 2. During construction	
BMP-15	Equipment Maintenance and Inspection Terrestrial equipment to be used in Butano Creek and Butano Marsh (e.g., excavators, trucks, loaders, dozers, etc.) will be retrofitted with vegetation-based oils. All other construction equipment will be maintained free of petroleum leaks. All vehicles operated within 250 ft of Butano Creek will be inspected daily for leaks and, if necessary, repaired before leaving the staging area. Inspections will be documented in a record that is available for review on request.	1. Include equipment maintenance and inspection BMP in the contract specifications. 2. Confirm measure is implemented. 3. Document all equipment inspections in a record log.	1. Confirm BMP is incorporated in the contract specifications. 2. Ensure corrective action if measure gets improperly implemented. 3. Ensure that equipment inspections are documented appropriately.	1. During development of plans and specifications 2. During construction 3. During construction	
BMP-16	Site Stabilization Earthwork above the ordinary high water mark (e.g., staging areas and access routes on unpaved surfaces) will be completed as quickly as possible, and site restoration will occur immediately following use. Bare soil surfaces resulting from maintenance and/or construction activities shall be covered with suitable erosion controls (fabrics, hydroseeding, mulch, etc.):	Include site stabilization BMP in the contract specifications. Confirm measure is implemented.	1. Confirm BMP is incorporated in the contract specifications. 2. Ensure corrective action if measure gets improperly implemented.	During development of plans and specifications During construction	

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	 Within 12 hours of any break in work unless Project activities will resume within 7 days. No later than 3 days following the disturbance during the rainy season (approximately November through March). No later than 7 days following the disturbance during the dry season (approximately April through October)*. Every effort shall be made to immediately cover bare soil surfaces resulting from maintenance and/or construction activities prior to storms. *Permittee may wait longer than 7 days to install erosion control following disturbance in sediment reuse areas do to the need to allow soils to stabilize prior to planting and/or mulch. 				
BMP-17	Environmental Awareness Training For each activity, all Project personnel will participate in a worker environmental awareness program. Under this program, Project personnel will be informed about the presence of special-status species and habitats associated with the species and that unlawful take of the animal or destruction of its habitat is a violation of applicable state and/or federal laws. Prior to Project activities, a qualified biologist approved by USFWS and NMFS will instruct all Project personnel about (1) the description and status of the species; (2) the importance of their associated habitats; and (3) a list of measures being taken to reduce impacts on these species during Project implementation. A fact sheet conveying this information will be prepared for distribution to the Project crew and anyone else who enters the Project site. A member of the Project crew will be appointed and identified during the environmental awareness program who will be the point of contact for any employee or contractor who might encounter a listed species. The representative's	Qualified biologist shall conduct environmental training for Project personnel in accordance with the BMP.	1. Retain a qualified biologist approved by USFWS and NMFS to conduct environmental awareness training. 2. Ensure training gets completed in accordance with the BMP. 3. Designate a point of contact that will serve as the primary point of contact should a listed species be encountered. Provide that contact's name and	1. Prior to construction 2. Prior to construction 3. Prior to construction	

	BMP or Mitigation Measure	Contractor Responsibility	SMRCD Responsibility	Monitoring Schedule	Completion Date and Initials
	name and telephone number will be provided to USFWS and NMFS prior to the initiation of any activities.		telephone number to USFWS and NMFS.		
BMP-18	Firearms No firearms (except for federal, State, or local law enforcement officers and security personnel) will be permitted at the Project site to avoid harassment, killing or injuring of wildlife.	Include BMP in the contract specifications. Confirm measure is implemented.	1. Confirm BMP is incorporated in the contract specifications. 2. Ensure corrective action if measure gets improperly implemented.	During development of plans and specifications During construction	
BMP-19	Domestic Animals No animals (e.g., dogs or cats) can be brought to the Project site to avoid harassment, killing or injuring of wildlife.	Include BMP in the contract specifications. Confirm measure is implemented.	1. Confirm BMP is incorporated in the contract specifications. 2. Ensure corrective action if measure gets improperly implemented.	During development of plans and specifications During construction	
BMP-20	Minimize Injury or Mortality of Fish during In-Channel Vegetation Clearing and Dredging Prior to in-channel dredging work, fish will be captured and relocated if necessary to avoid and minimize construction-related impacts to special-status fish species. The following measures are consistent with standard methods established by USFWS, NMFS, and CDFW for the capture, handing, and relocation of listed salmonids (steelhead, coho salmon) and tidewater gobies. Fish relocation activities will be performed only by qualified fisheries biologists, with a current CDFW and/or USFWS/NMFS collectors permit, and experience with fish capture and handling.	1. Fisheries biologist shall implement the relocation measures in accordance with the BMP. He/she shall determine appropriate release locations, ensure the exclusion net or screens are no greater than 3.1 mm, and aim on conducting the relocation activities three days prior to the	1. Retain a qualified fisheries biologist to conduct fish relocation work. 2. Ensure fisheries biologist follows procedures outlined in the BMP. 3. Ensure that reports are submitted to CDFW, USFWS	1. Prior to inchannel construction activities 2. Prior to and during inchannel construction activities 3. During inwater	

BMP or Mitigation Measure	Contractor Responsibility	SMRCD Responsibility	Monitoring Schedule	Completion Date and Initials
 Periodically measure air and water temperatures. Cease activities when water temperatures exceed temperatures allowed by CDFW and NMFS. Exclude fish from re-entering work area by blocking the stream channel above and below the work area with fine-meshed net or screens. Mesh will be no greater than 1/8 inch (3.1mm). The bottom edge of net or screen will be completely secured to the channel bed to prevent fish from re-entering work area. Exclusion screening will be placed in areas of low water velocity to minimize impingement of fish. Screens will be checked periodically and cleaned of debris to permit free flow of water. Prior to capturing fish, the qualified biologist will determine the most appropriate release location(s). Consider the following when selecting release site(s): a) Similar water temperature as capture location b) Ample habitat for captured fish c) Low likelihood of fish re-entering work site or becoming impinged on exclusion net or screen. Seining is the preferred method of fish capture, but electrofishing is acceptable with authorization from the appropriate state and federal resource agencies. Minimize handling of special-status fish. However, when handling is necessary, always wet hands or nets prior to touching fish. Temporarily hold fish in cool, shaded, aerated water in a container with a lid. Provide aeration with a battery-powered external bubbler. Protect fish from jostling and noise and do not remove fish from this container until time of release. Place a thermometer in holding containers and, if necessary, periodically conduct partial water changes to maintain a stable water temperature. If water temperature reaches or exceeds those allowed by 	start of in-water construction activities. 3. Count and record the number of fish captured and submit reports to CDFW, USFWS and/or NMFS. 4. If mortality during relocation exceeds 5 percent, stop efforts and contact USFWS, NMFS and CDFW for guidance on how to proceed.	and/or NMFS in a timely fashion. 4. Ensure that relocation work halts if mortality exceeds 5 percent	construction activities 4. During inwater construction activities	

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	 CDFW and NMFS, fish should be released and rescue operations ceased. Avoid overcrowding in containers. Have at least two containers and segregate young-of-year (YOY) salmonids and tidewater gobies from larger age-classes for salmonids to avoid predation. If fish are abundant, periodically cease capture, and release fish at predetermined locations. Visually identify species and estimate year-classes of fish at time of release. Count and record the number of fish captured. Avoid anesthetizing or measuring fish. Submit reports of fish relocation activities to CDFW and USFWS/NMFS in a timely fashion. If feasible, plan on performing initial fish relocation efforts several days prior to the start of in-water construction. This provides the fisheries biologist an opportunity to return to the work area and perform additional passes immediately prior to construction. In many instances, additional fish will be captured that eluded the previous day's efforts. If mortality during relocation exceeds 5 percent, stop efforts and immediately contact the appropriate agencies (CDFW and USFWS/NMFS). 				
BMP-21	Minimize Injury or Mortality of Special-Status Reptiles and Amphibians during Vegetation Clearing, Grading, and Dredging During vegetation clearing, grading, and dredging work, a qualified biologist (approved by the USFWS and CDFW) will be present to implement and oversee the following measures to minimize the potential for injury or mortality of California red-legged frogs (CRLF), San Francisco garter snakes (SFGS), and western pond turtles (WPT). Prior to work each day, and then during all construction activities that have the potential to result in take of any	1. Qualified biologist shall implement preconstruction surveys/inspections and conduct monitoring measures in accordance with the BMP. In particular: a) Biologist shall halt work in the event	Retain a qualified biologist to implement and oversee CRLF, SFGS and WPT protection measures. Ensure that qualified biologist complies with		

BMP or Mitigation Measure	Contractor Responsibility	SMRCD Responsibility	Monitoring Schedule	Completion Date and Initials
of these species, the biological monitor will inspect each work site to ensure that no CRLF, SFGS, or WPT are present. Care will be taken to examine any ground crevices, rodent burrows, stockpiled materials (e.g., under boards), or rock. The biological monitor will have the responsibility and authority to temporarily stop work at a site if an individual of one of these species is observed. If a CRLF, SFGS, or WPT is detected in the work area, all construction work will stop until the monitor has either relocated the individual or the individual has left the work area of its own volition. If an individual CRLF or WPT is observed in an area where it could potentially be injured or killed by Project implementation, the monitor-working under an approved biologist- will capture the individual and relocate it to suitable habitat well outside the work area. The relocation site for each species will be approved by the USFWS and CDFW in advance. If an individual SFGS is observed in an area where it could potentially be injured or killed by Project implementation, an approved biologist will capture the individual and relocate it to suitable habitat well outside the work area only with CDFW approval. If CDFW approval to capture SFGS is not obtained (because the species is listed as fully protected), the approved biologists or monitor will watch the individual until it has moved outside the work area. Any injuries to or mortalities of these species will be reported to the USFWS and CDFW within one working day. Should there be any mortality of CRLF or SFGS as a result of project activities, the specimen will be collected by the qualified biologist and sent to the USFWS as soon as possible after its discovery. The drivers of all project-related vehicles and equipment will be instructed to drive no more than 20	that an individual CRLF, SFGS, or WPT is observed in the work area until the individual has left the area on its own volition. b) Biologist shall contact USFWS and CDFW if an observed CRLF or WPT could be potentially injured or killed and will relocate it to suitable habitat. Biologist shall contact CDFW if an individual SFGS could be potentially injured or killed. c) Biologist shall report any injuries of CRLF, SFGS, or WPT to USFWS and CDFW within one working day.	measures outlined in the BMP.		

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	mph while within work areas and to look for CRLF, SFGS, and WPT; if an individual is observed, the drivers will be instructed to stop their vehicles until the individual(s) are out of harm's way or contact the onsite biologist. • Uneaten human food and trash attracts crows, ravens, coyotes, and other predators of the CRLF, SFGS, and WPT. A litter control program will be instituted at each Project site. All workers will ensure their food scraps, paper wrappers, food containers, cans, bottles, and other trash are deposited in covered or closed trash containers. The trash containers will be removed from the Project site at the end of each working day. • Pipes, conduits and other Project materials could provide shelter for CRLF or SFGS. All pipes, conduits, or similar structures that are stored at the site for one or more overnight periods will be either stored on an open-top trailer to elevate the materials above ground, securely capped prior to storage, or thoroughly inspected by the qualified biologist before the pipe is buried, capped, or otherwise used or moved. • Plastic monofilament netting (erosion control matting), loosely woven netting, or similar material in any form will not be used at the Project site because CRLF and WPT can become entangled and trapped in them. Any such material found on site will be immediately removed by the qualified biologist, Project personnel, or the applicant. Materials utilizing fixed weaves (strands cannot move), polypropylene, polymer or other synthetic materials will not be used.				
BMP-22	Avoid and Minimize Impacts to Nesting Birds during Vegetation Clearing, Grading, and Dredging The following measures will be implemented to first minimize the potential for Project activities to impact nesting	Qualified biologist shall conduct nesting bird surveys in areas where construction work is	If possible, schedule vegetation clearing work either early or late in the avian	1. Prior to construction	

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	 birds by avoiding work during the nesting season to the extent feasible, and then avoid impacts on active nests during work that must occur during the nesting season: Vegetation clearing will occur either early or late in the avian nesting season (e.g., before mid-March or after mid-July), or will occur entirely outside the February 15-August 15 nesting season, to the extent feasible to minimize the potential for active nests to be present when such work occurs. For activities occurring between February 15 and August 15, a qualified biologist will survey the Project area for nesting birds. This survey will occur no less than 5 days prior to starting work. If a lapse in Project-related work of 5 days or longer occurs, another focused survey will be conducted before Project work can be reinitiated. If nesting birds are found, a no-work buffer will be established around the nest and maintained until the young have fledged (generally 50-300 feet, depending on species and location). A qualified biologist will identify an appropriate buffer based on a site specific-evaluation and in consultation with CDFW. Work will not commence within the buffer until fledglings are fully mobile and no longer reliant upon the nest or parental care for survival. 	planned to occur between February 15 and August 15. Surveys will be conducted at least 5 days prior to the start of construction activities in accordance with the BMP. 2. If nesting birds are observed, a no-work buffer will be established through consultation with CDFW.	nesting season (before mid-Marsh or after mid-July) or outside the nesting season (February 15 – August 15). 2. Retain a qualified biologist to conduct nesting bird surveys. 3. Ensure that biologist conducts surveys in accordance with BMP. 4. Ensure that the biologist contacts CDFW regarding establishment of the no-work buffer.	2. Prior to construction activities 3. During construction 4. During construction	
BMP-23	Minimize Impacts to Woodrat Nests during Vegetation Clearing The following measures will be implemented to minimize impacts to nests of the San Francisco dusky-footed woodrat: No more than 30 days prior to the commencement of vegetation clearing in scrub or riparian habitats potentially supporting woodrat nests, a qualified biologist will survey accessible portions of the work areas for woodrat nests. The survey shall cover the vegetation removal work area and a 10-foot buffer. Any dusky-footed woodrat nests found, and that are	1. Qualified biologist shall conduct woodrat survey at least 30 days prior to the start of vegetation clearing in scrub or riparian habitat. Biologist shall implement impact minimization measures	1. Retain a qualified biologist to conduct San Francisco dusky-footed woodrat survey. 2. Ensure that biologist conducts woodrat survey in accordance with the	1. Prior to vegetation clearing work in scrub or riparian habitat 2. During vegetation clearing work in scrub or	

	BMP or Mitigation Measure	Contractor Responsibility	SMRCD Responsibility	Monitoring Schedule	Completion Date and Initials
	accessible, shall be marked in the field with flagging tape. Dusky-footed woodrat nests that are within the vegetation removal work area and 10-foot buffer will be dismantled, to the extent that the nests are accessible. A qualified biologist shall dismantle and relocate the nest material outside the work area. Due to the density of the riparian canopy (which would reduce the potential for predation by avian predator during dismantling) and safety concerns for biologists working in the muddy conditions and dense vegetation present within the floodplain, nest dismantling can occur any time of day (rather than just in the evening as is typical). Material from each nest will be placed in a suitable location within riparian habitat along Butano Creek but outside the work area. Nests that are not readily accessible due to height within trees, muddy conditions, dense vegetation, or other reasons will not be dismantled. Prior to the removal of vegetation containing such nests, the nests will be disturbed, either by heavy equipment (e.g., lightly shaking a tree that contains a nest or just touching a nest) or by the biologist who will be performing construction monitoring for special-status reptiles and amphibians (e.g., with a pole), to encourage any woodrats to exit the nest before destruction of the nest occurs.	outlined in the BMP, including: a. Dismantling of woodrat nests within the vegetation removal work area (if accessible). b. Disturbance of the nests prior to removal to encourage any woodrats to exit the nest prior to nest destruction.	measures listed in BMP.	riparian habitat	
BMP-24	Perform Focused Surveys for Special-Status Plant Species Within one year prior to commencement of ground disturbing activities, a qualified botanist will perform surveys for coastal marsh milk vetch (Astragalus pycnostachyus var. pycnostachyus) and Choris' popcornflower (Plagiobothrys chorisianus var. chorisianus). Surveys will occur within portions of the Project footprint that contain suitable habitat for these species. If special-status plants are detected within	Botanist shall conduct survey at least one year prior to ground disturbing activities in Butano Marsh.	1. Retain a qualified botanist to perform coastal marsh milk vetch and Choris' popcornflower survey.	1. Prior to ground- disturbing activities in 2. Prior to construction	

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	the Project footprint or within a 25-foot radius of the Project footprint, SMRCD or its contractor will implement BMP-25.		2. Ensure botanist conducts survey in accordance with the BMP.		
BMP-25	Avoid Impacts on Special-Status Plant Species If special-status plants are detected within the construction zone or within a 25-foot radius of the Project footprint, SMRCD will adjust the construction footprint or establish an exclusion area to avoid impacts to the plants, as feasible. Avoidance is anticipated to be potentially feasible for portions of the project in coyotebrush scrub, but not feasible for portions of the project within Butano Marsh. Locations of special-status plant populations will be clearly identified in the field by staking, flagging, or fencing prior to the commencement of activities that may cause disturbance. A qualified botanist shall determine whether direct and/or indirect impacts would occur. If the botanist determines that impacts would not be completely avoided, BMP-26 will be implemented.		1. If special-status plants are identified per BMP-24, retain a qualified botanist to flag identified special-status plants within construction footprint. 2. Ensure botanist completes flagging of identified special-status plants. 3. Adjust the construction footprint or establish exclusion area to avoid special-status plants.	1. Prior to construction 2. Prior to construction 3. Prior to construction Output O	
BMP-26	Minimize Impacts on Special-Status Plant Species If avoidance is not feasible, then SMRCD will implement measures to minimize the impact on the species. Minimization measures may include transplanting coastal marsh milk vetch, seed collection and dispersal for Choris' popcornflower, or other conservation strategies that will protect the viability of the local population. Impacts to coastal marsh milk vetch may require a management plan for this species. If minimization measures are implemented, monitoring of plant populations will be conducted annually	1. Qualified botanist shall develop a management plan that entails either transplanting coastal mark milk vetch, seed collection and dispersal for Chorsis' popcornflower, or other conservation strategies.		 Prior to construction Prior to construction Annually for 5 years after implementation of the selected 	

	BMP or Mitigation Measure	Contractor Responsibility	SMRCD Responsibility	Monitoring Schedule	Completion Date and Initials
	for 5 years by a qualified botanist to assess the BMP's effectiveness and results shall be reported to CDFW and any other relevant agencies. The performance standard for the BMP will be no net reduction in the size or viability of the local population.	2. Qualified botanist shall monitor plant populations annually for 5 years (either milk vetch, Choris' popcorn flower, or other selected conservation strategy) and submit results to CDFW and other relevant agencies.	2. Ensure botanist develops management plan in accordance with the BMP. 3. Ensure that qualified botanist conducts plant monitoring for at least 5 years and that the results get submitted to CDFW and appropriate agencies.	conservation strategy.	
BMP-27	Invasive Plant Control In order to minimize the spread of invasive plants during construction, all equipment (including personal gear) will be cleaned of soil, seeds, and plant material prior to arriving on the Project site to prevent introduction of undesirable plant species. Any straw bales that are used will be certified weed free. The Proposed Project will result in the increased susceptibility of several areas (including access routes and the natural levee analog) to a variety of exotic plant species for one to three years following Project construction. The most efficient and effective method of reducing impacts from invasive species is to exclude them where possible, and when not possible, to detect them when patches are small and most easily controlled. In order to reduce the spread of aggressive invaders that propagate vegetatively, such as cape ivy (Delaria odorata), existing patches within the Project footprint will be treated prior to disturbance. Consistent with the State Parks Department's ongoing maintenance program, species such as jubata grass	1. Include invasive plant control BMP in the contract specifications. 2. Confirm measure is implemented. Treat invasive plants (e.g., cape ivy, jubata grass and fennel) within designated access routes and the natural levee analog before, during and after construction.	1. Confirm BMP is incorporated in the contract specifications. 2. Ensure corrective action if measure gets improperly implemented.	1. During development of plans and specifications 2. During construction and after construction. Treat invasive plants within access routes and the levee analog on an annual basis for at least 3 years (starting in the late winter and spring after	

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	(Cortedaria jubata) and fennel (Foeniculum vulgare), which spread through seeds, have been treated either manually or chemically for the past five years. This treatment will continue before, during, and after Project construction. A variety of other weedy species that typically follow disturbance are widely distributed in upland areas of Butano Marsh. These include poison hemlock (conium maculatum), summer mustard (Hirschfeldia incana), black mustard (Brassica nigra) and purple velvet grass (Holcus lanatus). These species are expected to temporarily increase in cover within the Project footprint due to the removal of the native shrub canopy and the disturbance from vehicle use during Project construction. In order to allow for the reestablishment of the native coastal shrubs, these species as well as those listed in the paragraph above, will be treated three times annually for three years, starting in the late winter and spring following Project construction. In addition to these treatments, the entire Project site will be monitored annually for new, low incidence weeds. Any newly detected weeds will be evaluated for potential to impact the natural resources of the unit and will be prioritized and treated accordingly.			Project construction).	
BMP-28	Immediately Halt Construction If Cultural Resources Are Discovered, Evaluate All Identified Cultural Resources for Eligibility for Inclusion in the NRHP/CRHR, and Implement Appropriate Protection Measures for Eligible Resources If any cultural resources, such as structural features, unusual amounts of bone or shell, flaked or ground stone artifacts, historic-era artifacts, human remains, or architectural remains, are encountered during any project construction activities, work will be suspended immediately at the location	resources are discovered, halt construction immediately within 50 feet of the find and contact SMRCD. 2. Do not resume	1. Confirm that any discoveries of archaeological finds are evaluated and addressed properly in accordance with the BMP. 2. Provide clearance for construction activities to resume once appropriate.	1. During construction, if necessary 2. Following any cultural resource discovery 3. Following any cultural	

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of the find and within a radius of at least 50 feet and the SMRCD will be contacted. All cultural resources accidentally uncovered during construction within the project site will be evaluated for eligibility for inclusion in the NRHP/CRHR. Resource evaluations will be conducted by individuals who meet the U.S. Secretary of the Interior's professional standards in archaeology, history, or architectural history, as appropriate. If any of the resources meet the eligibility criteria identified in Public Resources Code (PRC) Section 5024.1 or 14 CCR Section 21083.2(g), protection measures will be developed and implemented in accordance with State CEQA Guidelines Section 15126.4(b) before construction resumes. For resources eligible for listing in the NRHP/CRHR that would be rendered ineligible by the effects of project construction, additional protection measures will be implemented. Protection measures for archaeological resources may include (but are not limited to) avoidance; incorporation of sites within parks, greenspace, or other open space; capping the site; deeding the site into a permanent conservation easement; or data recovery excavation. Protection measures for archaeological resources will be developed in consultation with responsible agencies and, as appropriate, interested parties such as Native American tribes. Native American consultation is required if an archaeological site is determined to be a tribal cultural resource. Implementation of the approved protection measures would be required before resuming any construction activities with potential to affect identified eligible resources at the site.	by SMRCD. 3. Implement all additional protection measures determined by SMRCD.	3. For any resources that would be rendered eligible for listing in NRHP/CRHR due to effects of project construction, determine additional protection measures in consultation with responsible agencies. Ensure implementation of those measures.	resource discovery	

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BMP-29	Discovered and Implement Applicable Provisions of the California Health and Safety Code If human remains are accidentally discovered during the proposed Project's construction activities, the requirements of California Health and Human Safety Code Section 7050.5 will be followed. Potentially damaging excavation will halt in the vicinity of the remains, with a minimum radius of 100 feet, and the San Mateo County Coroner will be notified. The Coroner is required to examine all discoveries of human remains within 48 hours of receiving notice of a discovery on private or state lands (California Health and Safety Code Section 7050.5[b]). If the Coroner determines that the remains are those of a Native American, he or she must contact the Native American Heritage Commission (NAHC) by phone within 24 hours of making that determination (California Health and Safety Code Section 7050[c]). Pursuant to the provisions of PRC Section 5097.98, the NAHC will identify a Most Likely Descendent (MLD). The MLD designated by the NAHC will have at least 48 hours to inspect the site and propose treatment and disposition of the remains and any associated grave goods. SMRCD will work with the MLD to ensure that the remains are removed to a protected location and treated with dignity and respect.	until clearance is given by SMRCD.	1. Confirm that a stop work measure for the discovery of human remains is included in the project plans and specifications. 2. The state shall immediately contact the San Mateo County Coroner upon notification of any findings of human remains. 3. Confirm that any discoveries of human remains are evaluated and addressed properly in accordance with the BMP.	1. During preparation of plans and specifications 2. During construction 3. During construction	
Mitigatio	on Measures				
AQ-1	Material Hauling NOx Emissions Control and Cap Measures SMRCD or its contractor shall implement any combination of the measures described below to reduce nitrogen oxides (NO _x) emissions, in any given construction year, to ensure Project NO _x emissions are capped below an average of 54 pounds per day. As a performance standard, the mitigation measures shall demonstrate that off-road equipment (greater than 50 horsepower [hp]) and	 Include NO_x emission reduction measures into the project plans and specifications. Implement and document NO_x emission reduction measures to meet 	1. Confirm NO _x emission reduction measures are incorporated into the project plans and specifications. 2. Confirm NO _x emission reduction measures are	construction	

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	material hauling vehicles used during construction (i.e., owned, leased, and subcontracted vehicles) will achieve emission reductions to the extent feasible. Equipment and material hauling vehicles shall achieve at least a project-wide fleet average of 20 percent NO _X reduction compared to the most recent California Air Resources Board (CARB) fleet average up to a Tier IV-equivalent engine. The SMRCD or its contractor will implement any of the following examples of appropriate mitigation to achieve this reduction including, but not limited to: limit the number of daily one-way material hauling trips, use alternative-fueled equipment, alter the phasing of construction activities, use of chemical additives or aftermarket devices to reduce emissions on existing equipment, use higher tier (Tier 3 or greater) and/or newer models for equipment and/or material hauling trucks, use of electrically powered equipment, reduction in total equipment hours, use of alternative fuels, or engine retrofit technology.	threshold (54 pounds per day).	adequate and implemented properly.		
HYD/W Q-1	Water Turbidity Monitoring. The SMRCD and/or State Parks will retain staff to monitor turbidity levels in Butano Marsh and Butano Creek within 150 feet downstream of the Project area prior to and during construction activities. Observations recorded prior to construction will be used to establish baseline conditions for the Project area. During construction activities, turbidity levels downstream of the Project area will be monitored hourly and will not increase more than 20 percent above baseline conditions or 10 percent if turbidity levels are greater than 50 NTUs. If at any point turbidity exceeds the response threshold limit (i.e., 20 percent above baseline conditions or 10 percent if	1. Water quality monitors shall monitor turbidity levels on an hourly basis. In the event that turbidity levels increase more than 20 percent above baseline conditions or 10 percent if turbidity levels are greater than 50 NTUs, halt construction and	 Retain staff to monitor turbidity levels in Butano Marsh and Butano Creek. Confirm that turbidity levels do not exceed 20 percent above baseline conditions or 10 percent if turbidity 	 Prior to construction During inwater construction activities 	

	BMP or Mitigation Measure	Contractor Responsibility	SMRCD Responsibility	Monitoring Schedule	Completion Date and Initials
	baseline turbidity levels are greater than 50 NTUs), instream work activities will halt until turbidity levels fall below this threshold and additional response measures are implemented. Additional response measures may include repair or augmentation of silt fences, installation of additional silt fences, modification to instream work methods, and/or other turbidity control measures. Turbidity levels are not to exceed 20 percent above baseline conditions or 10 percent above baseline conditions if turbidity levels are greater than 50 NTUs during any phase of the Project.	implement additional response measures.	levels are greater than 50 NTUs.		
HYD/W Q-2	The SMRCD and/or State Parks will retain staff to monitor dissolved oxygen levels in Butano Marsh, Butano Creek and the lagoon downstream of the Project area before, during, and after construction. Pre-construction monitoring will be used to indicate baseline dissolved oxygen levels. As part of the Project, a spray aeration system will be installed at strategic levels in Butano Creek and Butano Marsh. If dissolved oxygen levels in Butano Marsh, Butano Creek, and or the lagoon drop below 8.0 mg/L, additional aeration devices will be installed. Efforts will be made to maintain dissolved oxygen levels in Butano Creek and open water area in the marsh at or above 7.0 mg/L.	1. Water quality monitors shall monitor dissolved oxygen levels. In the event that dissolved oxygen levels drop below 8.0 mg/L, install additional aeration devices to maintain levels at or below 7.0 mg/L.	 Retain staff to monitor dissolved oxygen levels in Butano Marsh, Butano Creek, and Pescadero Lagoon. Confirm that dissolved oxygen levels remain below 7.0 mg/L. 	 Prior to construction Prior to, during, and after in-water construction activities 	
TR-1	Prepare and Implement a Construction Traffic Management Plan. SMRCD or its contractor will prepare and implement a traffic management plan to reduce potential impacts on the circulation system, including interference with local emergency response planning, potential traffic safety hazards, and impeding access for emergency responders. Development and implementation of the	 Prepare project construction plans and specifications to include the mitigation measure. Prepare and implement a Traffic Management Plan that includes, at a 	1. Review and approve project construction plans and specifications to confirm that the mitigation measure is included.	 During development of plans and specifications Prior to and during construction 	

BMP or Mitigation Measure	Contractor Responsibility	SMRCD Responsibility	Monitoring Schedule	Completion Date and Initials
traffic management plan will be coordinated with Caltrans and the County Department of Public Works. The plan will be submitted to the County Department of Public Works and, as necessary, Caltrans for review. The plan will include, but will not be limited to, the following items: Implement comprehensive traffic control measures, including scheduling of work within the roadway to avoid peak traffic hours, lane closure procedures, warning and detour signs (if required), flaggers, barricades, speed control devices, cones for drivers, and other measures. Notify adjacent property owners, CAL FIRE, and public safety personnel regarding timing of lane closures and/or work within the roadway. Coordinate with Caltrans regarding lane closures on State Route 1 and obtain an encroachment permit.	elements in the mitigation measure including notification of adjacent property owners, CAL FIRE, and public safety personnel. 3. If traffic disruption is anticipated along State Route 1, apply	permit is necessary, review application.		