

Attachment D: Cullinan Ranch EIR Mitigation Monitoring and Reporting Plan

Environmental Consequence	Mitigation Measure	Components	Implemented By:	Timing			Monitored By:	Verified By:	Date Verified:
				Pre-Const.	Const.	Post-Const.			
Biological Resources									
BIO-3. Implementation of the Preferred Restoration Alternative could result in Temporary Loss of Salt Marsh Harvest Mouse Habitat and Potential Mortality of Individual Salt Marsh Harvest Mice	BIO-3.1:	Remove Salt Marsh Harvest Mice (SMHM) from Project Area: qualified biologists will flush SMHM in advance of construction equipment, in accordance with Biological Opinion. Trapping prior to construction will be used to evaluate populations to develop a monitoring baseline.	USFWS	X	X		US Fish and Wildlife Service (USFWS)		
		Remove Salt Marsh Harvest Mouse Habitat by weed-wacking or using mechanical equipment to remove pickleweed sod and place on the inside of the lowered levee, place Barrier Fencing to preclude re-entry of SMHM in accordance with the Biological Opinion	Contractor		X		DU		
		Create a Minimum of Approximately 30 acres of new SMHM habitat that includes upland transition habitat along the buttress levee and adjacent to existing populations at Guadalcanal Village, and up to 50 additional acres using suitable imported material, if available and budget allows	Contractor		X		DU		
		Evaluate success of habitat development post-construction in accordance with Mitigation and Monitoring Plan	USFWS			X	USFWS		
	BIO-3.2:	Utilize water control structures in Pond 1 levee to slowly flood-up Cullinan Ranch to encourage a slow emigration of animals from the Site	Contractor		X		USFWS		
		Include language in bid documents and contract directing contractor implementation of relevant components of BIO-3.1 and 3.2	DU	X			DU		
BIO-4. Implementation of the Preferred Restoration Alternative would result in temporary habitat loss and could Disturb California Clapper Rails and Black Rails	BIO-4.1:	Avoid construction within tidal marsh habitat along Dutchman and South Sloughs, or within 700 feet from these areas, between February 1 and July 31 of each year, or perform surveys and proceed in accordance with Biological Opinion.	Contractor		X		DU		
		Include language in bid documents and contract directing contractor avoidance of construction in tidal marsh within restricted dates to implement BIO-4.1	DU	X			DU		
BIO-5. Implementation of the Preferred Restoration Alternative could Disturb San Pablo Song Sparrow and Result in Abandoned Nests and Mortality of Young	BIO-5.1:	In the year prior to breaching, a qualified biologist will remove, or oversee removal, of preferred nesting habitat (i.e. gumplant and coyote bush) from the vicinity of the proposed breaches, extending 50 feet beyond proposed breach locations in each direction	USFWS		X		USFWS		
	BIO-5.2:	A qualified biologist shall conduct pre-construction Surveys Prior to Breaching.	USFWS	X			USFWS		
		If San Pablo Song Sparrows are Present, Construct Breaches Outside of Breeding Season.	USFWS	X			USFWS		
		Include language in bid documents and contract directing contractor cooperation with USFWS implementation of BIO-5.1 and BIO-5.2	DU	X			DU		

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BIO-6. Implementation of the Preferred Restoration Alternative could result in Construction-Related Mortality of Salmonids and Other Special Status Fish	BIO-6.1:	Avoid Construction that Could Affect Tidal Aquatic Habitats when Salmonid species are Known to Occur between January 1 and July 31 of each year	Contractor		X		DU		
		Include language in bid documents and contract directing contractor cooperation with USFWS implementation of BIO-6.1	DU	X			DU		
BIO-10. Implementation of the Preferred Restoration Alternative would result in Permanent Loss of Burrowing Mammal Habitat and Potential Mortality of Individual Mammals	BIO-3.2:	Utilize water control structures in Pond 1 levee to slowly flood-up Cullinan Ranch to encourage a slow emigration of animals from the Site	Contractor		X		DU		
BIO-14. Implementation of the Preferred Restoration Alternative would result in the Potential Spreading of Invasive Non-Native Plants	BIO-14.1	Qualified botanist will conduct non-native plant assessment of areas where grading, earthwork, and other construction activities will occur, and will make recommendations to control spread of non-native species.	USFWS	X			USFWS		
		Include language in bid documents and contract to ensure contractor compliance with equipment cleaning provisions to minimize potential to spread non-native species; and with biologist recommendations to control spread of non-native plant species within the site.	DU		X		DU		
	BIO-14.2	Monitor areas graded or disturbed during construction for Infestations by Invasive Non-Native Plants	USFWS		X		USFWS		
	BIO-14.2	A long-term monitoring plan will be developed, subject to review and approval by USFWS and plan will be implemented.	USFWS		X	X	USFWS		
	BIO-14.2	Early detection and rapid response protocols will be incorporated into the monitoring plan	USFWS		X		USFWS		
Transportation									
TR-2. Implementation of the Preferred Restoration Alternative could diminish Overall Traffic Operations along Highway 372 or its Approaches during Importing Operations.	TR-2.1.	Develop and Implement a Traffic Control Plan in Coordination with California Department of Transportation (Caltrans). If possible, limit truck importing operations to non-peak hours.	DU	X	X		USFWS	Caltrans	
TR-3. Construction of Access Lanes to and from Highway 37 could result in Temporary Traffic Congestion along Highway 37	TR-2.1.	see above.	DU	X	X		USFWS	Caltrans	
		Include language in bid documents and contract directing contractor implementation of TR-2.1, development of a Traffic Control Plan	DU	X			DU		

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Noise									
N-2. Implementation of the Preferred Restoration Alternative could result in Temporary Increases in Noise Levels to more than 65 dBA during Construction Activities	N-2.1.	Conduct Noise Monitoring and Implement Noise Reducing Construction Practices if Needed.	Contractor	X	X		DU		
		Include language in bid documents and contract directing contractor implementation of N-2.1	DU	X			DU		
Air Quality									
AQ-2. Implementation of the Preferred Restoration Alternative would result in Construction-Related Emissions of PM10	AQ-2.1.	Implement Bay Area Air Quality Management District Standards as necessary to Control Particulate Matter 10 Emissions during Construction. Water all active construction areas twice daily; cover all trucks hauling soil, sand and other loose material or require all trucks to maintain at least 2 feet of freeboard; apply water 3X daily; or apply nontoxic soil stabilizers on all unpaved access roads, parking areas, and staging areas at construction sites; sweep parking areas, and staging areas at construction sites with water seepers if visible soil material is carried onto adjacent public streets; hydroseed or apply non-toxic soil stabilizers to inactive construction areas; enclose, cover, water twice daily, or apply non-toxic soil binders to exposed stockpiles; limit traffic speeds on unpaved roads to 15 mph; install sandbags or other erosion control measures to prevent silt runoff to public roadways; replant vegetation in disturbed areas as quickly as possible.	Contractor	X	X		DU		
		Also may further limit PM10 pollutants by using the following measures: install wheel washers for all exiting trucks, or wash off the tires or tracks of all trucks and equipment leaving the site; install wind breaks, or plant trees/vegetative wind breaks at windward side(s) of construction areas; suspend excavation and grading activity when winds (instantaneous gusts) exceed 25 mph; limit the area subject to excavation, grading, and other construction activity at any one time	Contractor		X		DU		
		Include dust control requirements in bid documents and contract directing contractor implementation of AQ-2.1	DU	X			DU		

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AQ-3. Implementation of the Preferred Restoration Alternative would result in Minimal Emissions of Ozone Precursors from Construction Activity	AQ-3.1.	Implement BMPs where feasible to Ensure Ozone Precursors Emissions are minimized; including the following. Prior to construction contractor shall conduct inventory of all equipment and suitability of add-on emission controls for each piece of equipment will be identified prior to ground breaking. The contractor shall ensure the newest, cleanest equipment available meeting the most stringent of applicable or Federal or State Standards will be used to the extent feasible based on equipment availability and in accordance with federal regulations. All engines will be maintained and tuned according to manufacturers specifications to perform at EPA certification levels. Periodic, unscheduled inspections will be conducted to limit unnecessary idling and to ensure that construction equipment is properly maintained, tuned, and modified consistent with the established specifications. EPA-registered particulate traps and other appropriate controls will be used where suitable to reduce emissions of diesel particulate matter and other pollutants at the construction site.	Contractor	X	X		DU		
		Include inventory requirements and add-on emissions control equipment evaluation in construction bid documents and construction contract. Provide for inspections and regular maintenance in contract as well, directing contractor implementation of AQ-3.1	DU	X			DU		
Cultural Resources									
CR-3. Implementation of the Preferred Restoration Alternative could Potentially Effect Subsurface Historic or Archaeological Artifacts	CR-3.1.	If Unanticipated historic or archeological artifacts are encountered during construction, all work within 50 feet of that area or that would affect that area shall stop until an archeological consultant assesses the artifacts. The USFWS will contact their Regional Office Cultural Affairs liaison. If human remains are encountered during construction, a Native American tribal representative and the County Coroner shall be Informed and consulted as required by state law. Subsequent activities in the area will be subject to the findings of the archeological consultant and other required parties.	Contractor	X	X		DU		
		Include provisions in bid documents and construction contract addressing encounters with historic or archeological artifacts and human remains.	DU	X		DU			