

MITIGATION MONITORING AND REPORTING PROGRAM
BRANNAN-ANDRUS LEVEE MAINTENANCE DISTRICT
GEORGIANA SLOUGH EROSION CONTROL AND HABITAT
ENHANCEMENT PROJECT.

Date of Approval: August 8, 2024

In accordance with Section 15074(d) of the California Environmental Quality Act (CEQA) Guidelines, the following Mitigation Monitoring and Reporting Program (MMRP) identifies the mitigation measures for the Brannan-Andrus Levee Maintenance District (BALMD) Georgiana Slough Erosion Control and Habitat Enhancement Project. (Project). BALMD staff will be responsible for ensuring that the following mitigation measures are implemented for the Project. This includes ensuring that, where applicable, the appropriate mitigation measures are included in construction contracts and construction specifications and drawings that are prepared for the Project. The BALMD also will be responsible for overseeing field inspections that are conducted (as necessary) on a timely basis to ensure that the specified mitigation measures are being implemented. The construction contractor(s) selected for the Project will be required to implement the specified measures in a timely manner.

The following measures shown in **Table 1** must be adopted by the BALMD Board of Directors as part of the approval of this Project. The following table provides the adopted mitigation measures, including the timing, implementing responsibility, and monitoring responsibility for each measure.

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Measure	Timing	Implementation Responsibility	Monitoring/Reporting Responsibility
AIR QUALITY			
<p>Mitigation Measure AQ-1. Best Available Construction Measures</p> <p>BALMD would ensure Project contractors implement/adopt the relevant Sacramento Metropolitan Air Quality Management District Basic Control Emission Control Practices (also known as BMPs) during project construction including:</p> <ul style="list-style-type: none"> • Control of fugitive dust is required by District Rule 403 and enforced by District staff. • Water all exposed surfaces two times daily. Exposed surfaces include, but are not limited to soil piles, graded areas, unpaved parking areas, staging areas, and access roads. • Cover or maintain at least two feet of free board space on haul trucks transporting soil, sand, or other loose material on the site. Any haul trucks that would be traveling along freeways or major roadways should be covered. • Use wet power vacuum street sweepers to remove any visible ‘trackout’ mud or dirt onto adjacent public roads at least once a day. Use of dry power sweeping is prohibited. • Limit vehicle speeds on unpaved roads to 15 miles per hour (mph). • The following practices describe exhaust emission control from diesel powered fleets working at a construction site. California regulations limit idling from both on-road and off-road diesel-powered equipment. 	<p>Phase: Pre-construction and during construction.</p>	<p>Responsible Party: BALMD and environmental consultants.</p> <p>Activity: Conduct pre-construction surveys.</p>	<p>Responsible Party: BALMD and construction contractors.</p> <p>Activity: Include the identified measure in the Project’s construction specifications issued to contractors.</p>

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<p>CARB enforces idling limitations and compliance with diesel fleet regulations.</p> <ul style="list-style-type: none"> ▪ Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to 5 minutes [California Code of Regulations, Title 13, sections 2449(d)(3) and 2485]. Provide clear signage that posts this requirement for workers at the entrances to the site. ▪ Provide current certificate(s) of compliance for CARB's In-Use Off-Road Diesel-Fueled Fleets Regulation [California Code of Regulations, Title 13, sections 2449 and 2449.1]. • Maintain all construction equipment in proper working condition according to manufacturer's specifications. The equipment must be checked by a certified mechanic and determined to be running in proper condition before it is operated. 			
BIOLOGICAL RESOURCES			
<p>Mitigation Measure BIO-1: Special Status Plants Avoidance</p> <p>BALMD would ensure during the appropriate bloom windows prior to construction, a qualified biologist or botanist shall survey all areas of suitable habitat for special status plant species with potential to occur on the project site <u>in accordance with CDFW's <i>Protocols for Surveying and Evaluating Impacts to Special-Status Native Plant Populations and Natural Communities</i></u>. If any are detected, the location of all individual of special status plant species shall be mapped. Where feasible, individuals shall be fenced for avoidance during construction. Where avoidance is not feasible, losses shall be offset through</p>	<p>Phase: Pre-construction and during construction.</p>	<p>Responsible Party: BALMD and environmental consultants.</p> <p>Activity: Conduct pre-construction surveys.</p>	<p>Responsible Party: BALMD and construction contractors.</p> <p>Activity: Include the identified measure in the Project's construction specifications issued to contractors.</p>

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<p>inclusion of these species into the mitigation/restoration planting palette.</p> <p>If detected in the project site and to the extent feasible, rhizomes of the Suisun Marsh aster and Mason's lilaeopsis shall be salvaged and stored in damp soil and cared for by a qualified biologist or nursery professional until the habitat restoration components of the project are implemented. Salvage of Mason's lilaeopsis if found, may require additional authorizations from CDFW due to its status as a State rare species. Any agency consultations including the requirement to obtain a CESA Section 2081 incidental take permit for Mason's lilaeopsis or other CESA listed plant species, shall be completed prior to the start of construction, and the applicant shall submit written documentation of the results of such consultations. Mason's lilaeopsis and Suisun Marsh aster shall be included in the plant palette at a minimum 1.5 to 1 ratio of individuals planted to individuals removed.</p> <p>All efforts should be made to avoid the spread or introduction of invasive weeds during implementation of the Proposed Project. Appropriate BMPs that are intended and designed to curtail the spread of invasive plant species should be implemented during construction. These include, but are not limited to, the following:</p> <ul style="list-style-type: none"> • During construction, the project shall make all reasonable efforts to ensure imported material is free of invasive plant species. • Equipment and vehicles must be free of caked on mud and weed seeds/propagules before accessing and leaving the project site 			

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<ul style="list-style-type: none"> Landscaping materials shall not include invasive, non-native ornamentals as identified by the California Invasive Plant Council (Cal-IPC) Inventory. 			
<p>Mitigation Measure BIO-2. Pre-construction Northwestern Pond Turtle Survey</p> <p>Because northwestern pond turtle could migrate into the project site between the time that the field survey was completed and the start of construction, BALMD would ensure a pre-construction survey for northwestern pond turtle shall be performed by a qualified biologist to ensure that northwestern pond turtle is not present.</p> <ul style="list-style-type: none"> The survey shall be performed within 2 weeks of project initiation/ground disturbance. If northwestern pond turtle is detected, construction shall be delayed in that area, and the appropriate wildlife agency (CDFW and/or USFWS) shall be consulted, and avoidance and minimization measures implemented. 	<p>Phase: Pre-construction and during construction.</p>	<p>Responsible Party: BALMD and environmental consultant.</p> <p>Activity: Conduct pre-construction surveys and regular inspections.</p>	<p>Responsible Party: BALMD and construction contractors.</p> <p>Activity: Include the identified measures in the Project's construction specifications issued to contractors.</p>
<p>Mitigation Measure BIO-3. Roosting Bats Avoidance and Minimization Measures</p> <p>Prior to construction activities commencing, BALMD would ensure a qualified biologist shall conduct a habitat assessment for potentially suitable bat habitat. If the habitat assessment reveals suitable bat habitat, the qualified biologist shall submit an avoidance and protection plan to CDFW for review. The avoidance and protection plan shall:</p> <ul style="list-style-type: none"> evaluate the suitable habitat present within the Project area 	<p>Phase: Pre-construction and during construction.</p>	<p>Responsible Party: BALMD and environmental consultant.</p> <p>Activity: Conduct regular inspections.</p>	<p>Responsible Party: BALMD and construction contractors.</p> <p>Activity: Include the identified measures in the Project's construction specifications issued to contractors.</p>

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<ul style="list-style-type: none"> develop work windows for tree trimming and/or tree removal (typically August 31 through October 15 when young bats would be self-sufficiently volant and prior to hibernation, and March 1 to April 15 to avoid hibernating bats and prior to formation of maternity colonies), identify appropriate protective buffers, and outline timing of tree trimming and removal. <u>The approved avoidance and protection plan shall be adhered to prior to and for the duration of construction.</u> 			
<p>Mitigation Measure BIO-4: Raptor Avoidance and Minimization Measures</p> <p>BALMD will implement the following measures to minimize and avoid impacts to raptors:</p> <ul style="list-style-type: none"> If feasible, all vegetation clearing, tree removal, and tree trimming shall occur outside of the nesting season (September 1 through February 14). If construction activity is scheduled during the nesting season (February 15 through August 31), a qualified biologist shall conduct a pre-construction survey for Swainson's hawk, white-tailed kite and active Swainson's hawk and white-tailed kite nests. Surveys shall be conducted within two weeks of the start of construction activities that are scheduled to occur during the nesting/breeding season. The survey shall include the project site plus a 0.5-mile buffer. The pre-construction survey shall be conducted during the time of day when the birds are active and should be of sufficient duration to reliably conclude presence/absence of Swainson's hawk and white-tailed kite nests. A report of the survey 	<p>Phase: Pre-construction and during construction.</p>	<p>Responsible Party: BALMD and environmental consultant.</p> <p>Activity: Conduct pre-construction surveys and establish buffer zones if active nests are found.</p>	<p>Responsible Party: BALMD and construction contractors.</p> <p>Activity: Include the identified measures in the Project's construction specifications issued to contractors.</p>

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<p>results shall be submitted to the BALMD prior to issuance of any grading or building permits. As a fully protected species, there is no allowable “take” for white-tailed kite under any circumstances. As a State endangered species, there is no “take” of Swainson’s hawk without “take” authorization from CDFW.</p> <ul style="list-style-type: none"> • If no active Swainson’s hawk or white-tailed kite nests are detected, no additional action is required. • If active Swainson’s hawk <u>or white-tailed kite</u> nests are observed within 0.5 mile of the project, a minimum 0.25-mile avoidance buffer shall be established around each nest. Any variance for smaller avoidance buffers shall only be allowed with the approval of CDFW and the BALMD. Active nests shall be monitored by a qualified biologist during project-related activities. The avoidance buffer shall be maintained for the duration of the project, unless the biologist has determined that the young have fledged or are no longer dependent upon the nest and parental care. • If a Swainson’s hawk or white-tailed kite is observed perched or foraging in the project site, all project-related work shall cease and the individual will be allowed to leave the project site unimpeded and of its own accord before work may resume. • Work activities shall be avoided within active raptor nest buffers until young birds have fledged and left the nest(s). Readily visible exclusion zones shall be established in areas where nests must be avoided. 			

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<p>Mitigation Measure BIO-5: Non-Raptor Avoidance and Minimization Efforts</p> <p>BALMD will implement the following avoidance and minimization efforts:</p> <ul style="list-style-type: none"> • If feasible, removal and/or trimming of trees shall be scheduled to occur in the outside of the nesting season during non-breeding fall/winter months (September 1 through February 14), after fledging and before the initiation of the nesting season. • If project activities occur between February 15 and August 31, a qualified biologist shall conduct pre-construction surveys for nesting birds no more than 14 days prior to construction. The survey shall include the entire project site and a 250-foot buffer. If active nests are found, the qualified biologist shall establish an appropriate species-specific avoidance buffer of sufficient size to prevent disturbance of the nest by project activity (a minimum of 100 feet). That buffer will be reduced at such a time that CDFW agrees is appropriate. If no active nests are detected, no additional action is required. • If applicable (i.e., nests are detected as a result of the pre-construction surveys), the qualified biologist shall perform at least two hours of pre-construction monitoring of the nest to characterize “typical” bird behavior. The qualified biologist shall monitor the nesting birds and shall increase the buffer if the qualified biologist determines the birds are showing signs of unusual or distressed behavior by project activities. Atypical nesting 	<p>Phase: Pre-construction and during construction.</p>	<p>Responsible Party: BALMD and environmental consultant.</p> <p>Activity: Conduct pre-construction surveys and establish buffer zones if active nests are found.</p>	<p>Responsible Party: BALMD and construction contractors.</p> <p>Activity: Include the identified measures in the Project’s construction specifications issued to contractors.</p>

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<p>behaviors which may cause reproductive harm include, but are not limited to, defensive flights/vocalizations directed toward project personnel, standing up from a brooding position, and flying away from the nest.</p> <ul style="list-style-type: none"> If applicable, the qualified biologist shall have authority to order the cessation of all project activities if the nesting birds exhibit atypical behavior which may cause reproductive failure (nest abandonment and loss of eggs and/or young) until an appropriate buffer is established. To prevent encroachment, the established buffer(s) shall be clearly marked by high visibility material. 			
<p>Mitigation Measure BIO-6: Green Sturgeon Mitigation Acreage and Mitigation Credits</p> <p>BALMD will implement the following mitigation/avoidance and minimization efforts for the Project:</p> <ul style="list-style-type: none"> Permanent loss of 0.34 acres of soft bottom habitat due to the erosion repair impacts at the lowest waterside extent of the project, will require purchase of 0.34 acres of Green Sturgeon mitigation credit. Mitigation bank credits will be purchased from Fremont Landing Conservation Bank (operated by Wildlands) prior to project impacts. 	<p>Phase: Prior to construction.</p>	<p>Responsible Party: BALMD.</p>	<p>Responsible Party: BALMD and Mitigation Bank.</p> <p>Activity: Provide proof of purchase to NMFS and USACE.</p>
CULTURAL RESOURCES			
<p>Mitigation Measure CULT-1. Unanticipated Discovery of Archaeological Resources</p> <p>BALMD will implement the following measures to reduce impacts to cultural resources:</p>	<p>Phase: During construction</p>	<p>Responsible Party: BALMD and construction contractors.</p>	<p>Responsible Party: BALMD and construction contractors.</p>

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<ul style="list-style-type: none"> If prehistoric or historic artifacts, or other indications of archaeological resources such as unusual deposits of stone, bone or shell, stone artifacts, or historic trash deposits or foundations are discovered once ground-disturbing activities are underway, the find(s) shall be immediately evaluated by a qualified archaeologist. If the find is determined to be a historical or unique archaeological resource, contingency funding and a time allotment to allow for implementation of avoidance measures or appropriate mitigation shall be made available, as provided in §15064.5 of the CEQA Guidelines. Such measures may include, but not be limited to, Phase II archaeological evaluation and Phase III data recovery excavation. Work may continue on other parts of the Proposed Project Area while historical or unique archaeological resource mitigation takes place on-site. 		Activity: Retain qualified archaeologist to conduct survey if resources are found onsite and consult on other appropriate avoidance and mitigation actions.	Activity: Include the identified measures in the Project's construction specifications issued to contractors.
<p>Mitigation Measure CULT-2. Discovery of Human Remains</p> <p>BALMD will implement the following measures to reduce impacts to human remains if discovered:</p> <ul style="list-style-type: none"> If human remains are found, the State of California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the county coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. In the event of an unanticipated discovery of human remains, the county coroner must be notified immediately. If the human remains are determined to be prehistoric, the coroner shall notify the NAHC, which 	Phase: During construction	<p>Responsible Party: BALMD and construction contractors.</p> <p>Activity: Halt all work within a minimum of 50 feet of the discovery site and notify the County Coroner.</p>	<p>Responsible Party: BALMD and construction contractors.</p> <p>Activity: Include the identified measures in the Project's construction specifications issued to contractors.</p>

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<p>will determine and notify a most likely descendant (MLD). The MLD shall complete the inspection of the site within 48 hours of being granted access and may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials. If the landowner or authorized representative rejects the recommendation of the MLD, either the landowner or the MLD may request mediation by the NAHC, which would include the meaningful and timely discussion and careful consideration of the views of each party to come to an agreement. If the NAHC is unable to identify a MLD or the MLD fails to make a recommendation within 24 hours after notification by the NAHC, or the landowner or his authorized agent rejects the recommendation by MLD and mediation by the NAHC fails to provide a measure acceptable to the landowner, then the landowner or his authorized representative shall rebury the human remains and grave goods with appropriate dignity at a location on the property not subject to further disturbances.</p>			
GEOLOGY/SOILS			
<p>Mitigation Measure GEO-1. Accidental Discovery of Paleontological Resources</p> <p>BALMD will implement the following measures to reduce impacts to paleontological resources:</p> <ul style="list-style-type: none"> If vertebrae fossils (e.g., teeth, bones etc.) are unearthed by the construction crew anywhere on the project site, the finds should be set aside and all excavation activity shall cease at the specific place of discovery until a 	<p>Phase: During construction</p>	<p>Responsible Party: BALMD and environmental consultant</p> <p>Activity: Halt all work within a minimum of 50 feet of the discovery site and</p>	<p>Responsible Party: BALMD and construction contractors</p> <p>Activity: Include the identified measures in the Project's construction specifications issued to contractors.</p>

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paleontologist has assessed the find and, if deemed significant, salvaged the find in a timely manner. The decision to conduct paleontological salvage operations will be determined by the paleontologist in consultation with District staff. Work may proceed on other parts of the project while assessment and/or salvage by the paleontologist is underway. Finds determined significant by the paleontologist shall be deposited with a recognized repository such as the University of California Museum of Paleontology.		retain qualified paleontologist to conduct survey. Consult on other appropriate avoidance and mitigation actions.	
NOISE			
<p>Mitigation Measure NZ-1. Minimize Woodchipper Related Noise</p> <p>To reduce wood chipper noise-related impacts to occupants of nearby noise sensitive land uses, BALMD and its construction contractor will ensure the wood chipper used during the site preparation phase shall include one or more of the following noise reduction measures by design:</p> <ul style="list-style-type: none"> • Selection of low noise components, e.g. engine; • Optimization of the knife mounting configuration to reduce noise; • Selection of a low noise exhaust system; and/or • Use of low-noise operating mode. 	Phase: During construction.	<p>Responsible Party: BALMD and construction contractors</p> <p>Activity: Project construction will occur between 7:00 a.m. and 10:00 p.m.</p>	<p>Responsible Party: BALMD and construction contractors</p> <p>Activity: Include the identified measure in the Project's construction specifications issued to contractors.</p>

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TRIBAL CULTURAL RESOURCES			
<p>Mitigation Measure TRIB-1. Accidental Discovery of Tribal Cultural Resources</p> <p>If any resources of Native American origin are discovered once ground-disturbing activities are underway, the BALMD shall contact local Native Americans to consult on the find. If the find is determined to be a tribal cultural resource, contingency funding and a time allotment to allow for implementation of avoidance measures or appropriate mitigation determined in consultation with local Native Americans shall be made available. Work may continue on other parts of the project site while tribal cultural resources mitigation takes place on-site.</p>	<p>Phase: During construction.</p>	<p>Responsible Party: BALMD and construction contractors.</p> <p>Activity: Retain qualified archaeologist to conduct survey if resources are found onsite and consult on other appropriate avoidance and mitigation actions.</p>	<p>Responsible Party: BALMD and construction contractors.</p> <p>Activity: Include the identified measures in the Project's construction specifications issued to contractors.</p>