

Appendix G – NEW

Mitigation Monitoring and Reporting Program

Mitigation Monitoring and Reporting Program

As a condition of approval of the Elder Creek Improvement Project (proposed Project), adopted mitigation measures shall be implemented as specified below in Table 1, the Mitigation Monitoring and Reporting Program (MMRP). The MMRP is implemented as a requirement of the California Environmental Quality Act (State CEQA Guidelines Section 15097).

This MMRP for the proposed Project will be in place through all phases of the project, including design and construction, and will help ensure that Project objectives are achieved. The San Bernardino County Flood Control District (District), under the umbrella of the San Bernardino County Department of Public Works (County), shall be responsible for administering the MMRP and ensuring that all parties comply with its provisions. The District may delegate monitoring activities to staff, consultants, or contractors. The District also will ensure that monitoring is documented through periodic reports and that deficiencies are promptly corrected. The District, or its designated environmental monitor, will track and document compliance with mitigation measures, note any problems that may result, and take appropriate action to rectify problems.

Responsibilities of the Parties

Responsibility for implementing adopted mitigation measures, and for reporting on the implementation of these measures, rests with the District. The District will have primary responsibility for ensuring that the measures are implemented and may use its monitoring authority by evaluating written reports and plans, and also by active field evaluation of activities at the Project site to ensure compliance with the requirements of adopted measures.

Construction Documentation and Reporting

This summarizes the District's documentation and reporting requirements during project construction and operation as outlined in the MMRP (Table 1). In addition to any specific one-time submittals required in the MMRP, the District shall produce compliance reports during the initial project construction period, and during any deferred construction activities, as required by regulatory agencies that demonstrate compliance with the applicable construction period mitigation measures; and shall also maintain documentation of compliance with the operation mitigation measures.

Table 1. Mitigation Monitoring and Reporting Program

MM #	Mitigation Measure and District Responsibilities	Timing	Agency Responsibilities
Biological Resources			
BIO-1	<p><u>Mitigation Measure</u></p> <p><i>Consult and Obtain Permits for San Bernardino Kangaroo Rat.</i> The District shall consult with the US Fish and Wildlife Service (USFWS) to obtain take for San Bernardino kangaroo rat that have a potential to be present during the Project. The District or lead agency shall also obtain an Incidental Take Permit from California Department of Fish and Wildlife (CDFW) for impacts to San Bernardino kangaroo rat.</p> <p><u>District Responsibilities</u></p> <p>The District shall consult with the USFWS to obtain take for San Bernardino kangaroo rat. The District shall also obtain an Incidental take Permit from CDFW for impacts to San Bernardino kangaroo rat.</p>	Prior to construction	The District shall ensure compliance with this mitigation measure.
BIO-2	<p><u>Mitigation Measure</u></p> <p><i>Small Mammal Exclusion Plan.</i> The District shall prepare and implement a small mammal exclusion plan. The plan will include the following details (1) type of physical barrier that will be installed around the perimeter of the project site to exclude small mammals, (2) small mammal trapping by a permitted San Bernardino kangaroo rat biologist during appropriate weather conditions to capture the target species, (3) relocation of small mammals to adjacent intact suitable habitat, and (4) periodic monitoring of the physical barrier to ensure that small mammal re-entry to the project site is not possible.</p> <p><u>District Responsibilities</u></p> <p>The District shall ensure that a small mammal exclusion plan is prepared and implemented.</p>	Prior to and during construction	The District shall ensure compliance with this mitigation measure.
BIO-3	<p><u>Mitigation Measure</u></p> <p><i>Assign Project Biologist.</i> The District shall assign a qualified biologist to conduct pre-construction surveys (MM BIO-4), implement nesting bird avoidance (MM BIO-5), conduct burrowing owl surveys (MM BIO-6), ensure that work is limited to the approved disturbance area (MM BIO-7), monitor initial ground disturbance and vegetation clearing (MM BIO-8), and conduct worker trainings (MM BIO-9). A "qualified biologist" is defined as a person with appropriate education, training, and experience to conduct the required surveys, monitor Project activities, provide worker education programs, and supervise or perform other monitoring-related actions. The Project Biologist shall be authorized by the District to temporarily halt Project activities if needed to prevent take of listed species or harm to any other special-status species.</p> <p><u>District Responsibilities</u></p> <p>The District shall ensure that a qualified biologist is assigned to conduct and carry out Mitigation Measures BIO-4 through BIO-9.</p>	Prior to and during construction	The District shall ensure compliance with this mitigation measure.
BIO-4	<p><u>Mitigation Measure</u></p> <p><i>Pre-construction clearance survey.</i> Prior to the start of any ground disturbance or vegetation clearing, the Project Biologist shall survey the work area to determine if Santa Ana River woolly-star are present. During the survey the Project Biologist should also search for small mammal burrows, nesting birds, or any other special-status species within the work area. Any special-status species or sensitive resources shall be flagged and avoided, as feasible.</p>	Prior to construction	The District shall ensure compliance with this mitigation measure.

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MM #	Mitigation Measure and District Responsibilities	Timing	Agency Responsibilities
	<u>District Responsibilities</u> The District will ensure that the Project Biologist surveys the work area to determine if Santa Ana River woolly-star or other special-status species are present within the work area.		
BIO-5	<u>Mitigation Measure</u> <i>Nesting Bird Avoidance Measures.</i> Vegetation removal and initial ground disturbance shall be completed outside the breeding season (i.e., no removal of potential nesting habitat from February 15 through August 15), or after a pre-construction nesting bird survey has been completed. The qualified biologist shall confirm that no birds are nesting in or adjacent to areas to be disturbed. If native birds are nesting on the site, then construction will be postponed until nesting is completed or the Project Biologist shall designate appropriate avoidance buffers around nests to protect nesting birds. No Project related disturbance will be allowed within these buffers. <u>District Responsibilities</u> The District shall ensure that vegetation removal and initial ground disturbance be completed outside the breeding season or after a pre-construction nesting bird survey has been completed. The District shall not allow Project-related disturbances within avoidance buffers around nests.	Prior to and during construction and maintenance	The District shall ensure compliance with this mitigation measure.
BIO-6	<u>Mitigation Measure</u> <i>Burrowing Owl Avoidance Measures.</i> The Project Biologist shall survey the project site in advance of vegetation and soil clearing to determine burrowing owl presence or absence. If burrowing owls are present on the site outside of the nesting season (September 1 to January 31), then the California Department of Fish and Wildlife (CDFW) shall be consulted and the Project Biologist may be authorized to exclude them from the site using passive exclusion methods described in the most recent CDFW staff report on burrowing owl mitigation (CDFG, 2012). If burrowing owls are present on the site during nesting season (February 1 through August 31), then construction shall either be postponed until nesting is completed, or no disturbance will be allowed within an appropriate buffer area to be established by the Project Biologist in accordance with the CDFW staff report on burrowing owl mitigation (CDFG, 2012). <u>District Responsibilities</u> The District will ensure that the Project Biologist surveys the Project site in advance of vegetation and soil clearing to determine burrowing owl presence or absence.	Prior to construction	The District shall ensure compliance with this mitigation measure.
BIO-7	<u>Mitigation Measure</u> <i>Limit Disturbance Area.</i> Prior to the initiation of any ground-disturbing activity, the Project Biologist shall work with District staff and its contractors to clearly demarcate the approved work area with fencing, flagging, lathe and rope, or other devices. The demarcated area shall be limited to the mapped project disturbance area shown in Figure 1 of the Initial Study/Mitigated Negative Declaration. No construction-related activity shall be permitted outside the marked area.	Prior to construction	The District shall ensure compliance with this mitigation measure.

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MM #	Mitigation Measure and District Responsibilities	Timing	Agency Responsibilities
	<p><u>District Responsibilities</u></p> <p>The District shall ensure that the Project Biologist coordinates with District staff and contractors to clearly demarcate the approved work area with fencing, flagging, lathe and rope, or other devices.</p>		
BIO-8	<p><u>Mitigation Measure</u></p> <p><i>Biological Monitoring.</i> The Project Biologist or another qualified biological resources monitor shall be present on the work site during all initial ground disturbance or vegetation clearing to document compliance with the avoidance and minimization measures and any additional mitigation, and to provide guidance in avoiding or minimizing impacts to biological resources. Once initial ground disturbance and clearing is completed the biological monitor shall return on at least a weekly basis to ensure special-status species are being avoided and to inspect all the special-status species and evaluate the buffer distance.</p> <p><u>District Responsibilities</u></p> <p>The District will ensure that the Project Biologist or another qualified biological resources monitor be present on the work site during all initial ground disturbance or vegetation clearing to document compliance with all mitigation measures and provide guidance to minimize impacts to biological resources.</p>	During construction	The District shall ensure compliance with this mitigation measure.
BIO-9	<p><u>Mitigation Measure</u></p> <p><i>Worker training.</i> The assigned Project Biologist will conduct training to ensure that all workers on the Project site (including contractors) are aware of all applicable Conservation Measures for biological resources. Specifically, workers will be required to (1) limit all activities to approved work areas; (2) report any Santa Ana River woolly-star, small mammals, burrowing owl, or other special-status species, or bird nest observation in the work areas and access routes to the supervisor or Project Biologist; (3) avoid contact with any wildlife that may approach a work area and be aware of potential venomous reptile bites from carelessness or unnecessary harassment; (4) pick up and properly dispose of any food, trash or construction refuse; and (5) report any spilled materials (oil, fuel, solvent, engine coolant, raw concrete, or other material potentially hazardous to wildlife), to the supervisor or on-site Project Biologist. During the training, the instructor will briefly discuss special-status species that may occur in the work areas, their habitats, and requirements to avoid or minimize impacts. In addition, all workers will be informed of civil and criminal penalties for violations of the federal Endangered Species Act, California Endangered Species Act, and the Migratory Bird Treaty Act.</p> <p><u>District Responsibilities</u></p> <p>The District shall ensure that a Project Biologist trains all workers on the Project site on awareness of all applicable Conservation Measures for biological resources. Training may need to occur throughout construction as construction personnel changes.</p>	Prior to and during construction	The District shall ensure compliance with this mitigation measure.
BIO-10	<p><u>Mitigation Measure</u></p> <p><i>Limit Work Hours.</i> No work will be allowed to take place at night near biologically sensitive habitat areas.</p> <p><u>District Responsibilities</u></p> <p>The District shall ensure that no work is allowed at night near biologically sensitive habitat areas.</p>	During construction	The District shall ensure compliance with this mitigation measure.

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MM #	Mitigation Measure and District Responsibilities	Timing	Agency Responsibilities
BIO-11	<p><u>Mitigation Measure</u></p> <p><i>Wetland and Streambed Creation.</i> The District will develop and implement a Habitat Restoration Plan, or comparable plan, to create wetland, riparian, and upland vegetation within the Project site. The plan will provide details on the timing of the restoration, maintenance and monitoring plan, plant palette, and other details. The wetlands will be designed and constructed to maintain hydrology, hydric soils, and hydrophytic vegetation.</p> <p><u>District Responsibilities</u></p> <p>The District shall ensure a Habitat Restoration Plan or comparable plan is prepared and implemented for the Project site.</p>	Prior to, during, and after construction	The District shall ensure compliance with this mitigation measure.
BIO-12	<p><u>Mitigation Measure</u></p> <p><i>Obtain Required Permits.</i> The District will obtain all required permits from the US Army Corps of Engineers, Regional Water Quality Control Board, and California Department of Fish and Wildlife for impacts to jurisdictional waters of the state and non-wetland waters of the U.S.</p> <p><u>District Responsibilities</u></p> <p>The District shall ensure that all required permits for impacts to jurisdictional waters of the state and non-wetland waters of the U.S. are obtained.</p>	Prior to construction	The District shall ensure compliance with this mitigation measure.
Cultural Resources			
CUL-1	<p><u>Mitigation Measure</u></p> <p><i>Cultural Monitoring.</i> All initial grading and all excavation activities shall be monitored by a Project archaeologist retained by the District or its contractor. The Project archaeologist shall be present full-time during the excavation of native soils (undisturbed non-fill alluvial deposits) that have the potential to contain cultural deposits. The monitor shall document all monitoring activity. The Project archaeologist shall be qualified for historic resource evaluation, as defined in CEQA and by Office of Historic Preservation (OHP). The qualified archaeologist shall be listed, or be eligible for listing, in the Register of Professional Archaeologist (RPA).</p> <p>In the event of a discovery, or when requested by the Project archaeologist, the construction contractor shall divert, direct, or temporarily halt ground disturbing activities in the area of the discovery in order to evaluate potentially significant archaeological resources.</p> <p>It shall be the responsibility of the Project archaeologist to:</p> <ol style="list-style-type: none"> 1. Determine the scope and significance of the find, and 2. Determine the appropriate documentation, preservation, conservation, and/or relocation of the find; and determine when grading/excavation activities may resume in the area of the find. <p>If the find is determined to be a "unique archaeological resource", then the District or its contractor, in conjunction with the recommendation of the Project archaeologist, shall comply with California Public Resources Code Section 21083.2, subdivisions (b) through (f). If at any time the Project area, or a portion of the Project area, is determined to be a historical resource as defined in California Code of Regulations Chapter 3, Article 1, Section 15064.5, subdivision (a), the Project archaeologist shall prepare and issue a mitigation plan in conformance with Section 15126.4, subdivision (b). If the Project archaeologist determines that continuation of the Project or Project-related activities will result in an adverse impact on a discovered historical resource which</p>	During construction	The District shall ensure compliance with this mitigation measure.

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	<p>cannot be mitigated, all further activities resulting in the impact shall immediately cease, and the District's Project Manager shall be contacted for further evaluation and direction. The District or its contractor shall comply with the recommendations of the Project archaeologist with respect to the documentation, preservation, conservation, and/or relocation of finds.</p> <p>Monitoring activities may cease when initial grading and all excavation activities have concluded; or by written consent of the Project archaeologist agreeing that no further monitoring is necessary. At the conclusion of monitoring activities, and only if archaeological materials were encountered, the Project archaeologist shall prepare and submit a report of the findings to the District and the South-Central Coastal Information Center.</p> <p><u>District Responsibilities</u></p> <p>The District shall retain a Project archaeologist who will monitor all initial grading and excavation activities. The District will comply with California Public Resources Code Section 21083.2, subdivisions (b) through (f) if a find is determined to be a "unique archaeological resource." The District's Project Manager shall determine further action if the Project archaeologist determines that continuation of the Project or Project-related activities will result in an adverse impact on a discovered historical resource that cannot be mitigated. The District will comply with the Project archaeologist's recommendations, and accept any archaeological findings reports submitted by the Project archaeologist.</p>		
CUL-2	<p><u>Mitigation Measure</u></p> <p><i>Treatment of Human Remains.</i> If human remains are encountered during excavation activities, all work shall halt in the vicinity of the remains and the County Coroner shall be notified (California Public Resources Code, Section 5097.98). The Coroner will determine whether the remains are of forensic interest. If the Coroner, with the aid of a qualified Archaeologist, determines that the remains are prehistoric, s/he will contact the Native American Heritage Commission (NAHC). The NAHC will be responsible for designating the most likely descendant (MLD), who will be responsible for the ultimate disposition of the remains, as required by Section 7050.5 of the California Health and Safety Code. The MLD shall make his/her recommendation within 48 hours of being granted access to the site. If feasible, the MLD's recommendation shall be followed and may include scientific removal and non-destructive analysis of the human remains and any items associated with Native American burials (California Health and Safety Code, Section 7050.5). If the landowner rejects the MLD's recommendations, the landowner shall rebury the remains with appropriate dignity on the property in a location that will not be subject to further subsurface disturbance (California Public Resources Code, Section 5097.98).</p> <p><u>District Responsibilities</u></p> <p>The District shall ensure that if human remains are encountered during excavation activities all work will halt in the vicinity of the remains and the County Coroner will be notified.</p>	During construction	The District shall ensure compliance with this mitigation measure.
Paleontological Resources			
PAL-1	<p><u>Mitigation Measure</u></p> <p><i>Retention of a Qualified Paleontologist and the Preparation of a Paleontological Resources Mitigation and Monitoring Plan (PRMMP).</i> A Qualified Paleontologist shall be retained before the initiation of construction activities to develop a PRMMP for the project. The function of the PRMMP will be to explain Project geology, paleontological sensitivity, and procedures that will comply with State statutes and County of San Bernardino's requirements so that potential impacts to significant paleontological resources are minimized or eliminated. The Qualified Paleontologist will draw on geotechnical reports, grading and excavation plans, and the</p>	Prior to and during construction	The District shall ensure compliance with this mitigation measure.

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	<p>construction schedule in order to formulate the proper monitoring methods, places, and times. The Qualified Paleontologist shall participate in a preconstruction meeting with the District's staff and project contractors so that an understanding of construction mitigation measures is ensured and so that clear communication procedures are formulated. Full-time paleontological monitoring is recommended when Project earth-moving activities reach a depth of nine (9) feet below original ground level. This minimum depth will be stipulated in the PRMMP.</p> <p>The County of San Bernardino defines a qualified paleontologist as:</p> <ul style="list-style-type: none"> • Education: An advanced degree (Masters or higher) in geology, paleontology, biology or related disciplines (exclusive of archaeology). • Professional Experience: At least five years professional experience with paleontological (not including cultural) resources, including the collection, identification and curation of the resources. <p><u>District Responsibilities</u></p> <p>The District shall ensure that a Qualified Paleontologist develops a PRMMP for the Project to explain Project geology, paleontological sensitivity, and procedures that will comply with State statutes and San Bernardino's requirements to minimize or eliminate impacts to significant paleontological resources. The District will participate in a preconstruction meeting with the Qualified Paleontologist to ensure a mutual understanding of construction mitigation measures. A full-time paleontological monitoring shall be on-site during Project earth-moving activities at depths of 9 feet below original ground level.</p>		
PAL-2	<p><u>Mitigation Measure</u></p> <p><i>Worker Environmental Appreciation Training.</i> Prior to commencement of or participation in Project earth-moving activities, all construction personnel shall participate in training that shall provide examples of possible paleontological resources that could be encountered on the project. Construction personnel shall be trained on the procedures that shall be followed if a potential paleontological resource is encountered. The training shall include an explanation of applicable federal, State, and local laws. The training shall include instruction on the procedure to follow if construction personnel encounter a possible paleontological resource when a monitor is not present. The training shall emphasize the responsibility to notifying the construction supervisor when possible fossils are encountered when a monitor is not present. Construction work shall immediately cease within a 20-foot radius of the discovery. The paleontological monitor or the Qualified Paleontologist shall be summoned so that the find can be assessed, and appropriate steps taken if it proves to be significant.</p> <p><u>District Responsibilities</u></p> <p>The District shall ensure that all construction personnel shall receive training on paleontological resources that could be encountered on the Project, procedures that shall be followed, and applicable laws prior to participation in Project earth-moving activities. Training may need to occur throughout construction as construction personnel changes. The District will ensure that construction work ceases within a 20-foot radius of the discovery. The District will ensure that a paleontological monitor or Qualified Paleontologist assesses the find and provides appropriate steps if the find is significant.</p>	Prior to and during construction	The District shall ensure compliance with this mitigation measure.
PAL-3	<p><u>Mitigation Measure</u></p> <p><i>Paleontological Monitoring in Excavations Below Nine Feet.</i> Earth-moving activities shall be monitored by the paleontological monitor or the Qualified Paleontologist any time excavations reach a level of nine (9) feet or greater below original ground surface. The paleontological monitor and the Qualified Paleontologist shall have proper tools and supplies to quickly salvage</p>	During construction	The District shall ensure compliance with this mitigation measure.

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	<p>fossils when they are encountered and to minimize construction delays. If excavations below nine (9) feet encounter sediments that are appropriate for preserving fossils of small invertebrates and/or vertebrates, samples of the sediment shall be tested for the presence of significant paleontological resources. If the horizon is in danger of being back-filled or otherwise rendered inaccessible before the sediment sample is tested, approximately 3 cubic yards of the horizon in question shall be stockpiled onsite in a safe place so that it can further tested or processed later. In the event of a possible fossil discovery, the paleontological monitor and the Qualified Paleontologist shall have authority to temporarily halt or divert equipment to allow for inspection or salvage. If test samples indicate the presence of fossils in the sample, the stockpile shall be wet-screened in a location agreeable to the construction supervisor and the Qualified Paleontologist. The resulting concentrate shall be sorted with the aid of a binocular dissecting microscope. Pertinent data, including precise location and precise depth of a specimen shall be recorded in a field notebook. Site stratigraphy shall be recorded in photographs and sketches.</p> <p><u>District Responsibilities</u></p> <p>The District shall ensure that a paleontological monitor or Qualified Paleontologist monitors excavations 9 feet or greater below original ground surface. If a significant fossil is discovered, the paleontological monitor or Qualified Paleontologist shall have the authority to temporarily halt or divert equipment to allow for inspection or salvage. Data shall be collected on the specimen.</p>		
PAL-4	<p><u>Mitigation Measure</u></p> <p><i>Fossil Preparation, Identification, Curation, and Reporting.</i> Any identifiable and significant fossils recovered during monitoring and/or sediment sample processing shall be cleaned, stabilized, repaired, identified to the lowest taxonomic level possible, reported, and curated in a qualified repository. Each fossil shall be labeled with a locality number, the collector's name, date collected, taxon, and element. All appropriate fossil locality information shall be provided to the San Bernardino County Museum. All fossil specimens shall be curated at the San Bernardino County Museum if it is equipped to receive and curate specimens at that time. If not, the specimens shall be curated in a qualified paleontological repository as defined by the Society of Vertebrate Paleontology (2010).</p> <p>If significant paleontological resources are recovered, the Qualified Paleontologist shall prepare a final summary report. It shall include discussion of the monitoring and recovery methods employed, stratigraphic context of any and all specimens recovered, significance of specimens recovered, and an itemized list of fossil(s) recovered. A copy of the report shall be provided to the District and a copy shall accompany the collection to its institution where it is curated.</p> <p><u>District Responsibilities</u></p> <p>The District shall ensure that identifiable and significant fossils discovered shall be cleaned, stabilized, repaired, identified, reported, and curated in a qualified repository. The District shall also ensure that a Qualified Paleontologist prepares a final summary report if significant paleontological resources are recovered. A copy of the report shall be provided to the District and a copy shall accompany the collection to its institution where it is curated.</p>	During construction	The District shall ensure compliance with this mitigation measure.
Hydrology and Water Quality			
HYD-1	<p><u>Mitigation Measure</u></p> <p><i>Stormwater Pollution Prevention Plan (SWPPP).</i> Prior to construction, the District or its contractor shall prepare a Storm Water Pollution Prevention Plan (SWPPP) that includes all State Water Resources Control Board requirements as well as the following</p>	Prior to and during construction	The District shall ensure compliance with this mitigation measure.

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	<p>Best Management Practices (BMPs) to ensure that disturbed soils do not impact water quality downstream. The SWPPP shall include, but not be limited to, the following BMPs.</p> <p>BMP 1 Avoid Channel Work during the Rainy Season to the Greatest Extent Practicable. To the greatest extent practicable, construction and routine maintenance activities in earthen channels and in channels with soft bottoms and bank protection shall be avoided during the rainy season. In the Santa Ana watershed (Valley Areas), the rainy season is typically from October through April. If work must occur within the channel, water diversion structures shall be in place to protect water quality downstream.</p> <p>BMP 2 Clear Water Diversion. Should water be encountered during construction and maintenance, clear water diversion structures such as diversion ditches, berms, dikes, cofferdams, slope drains, rock, gravel bags, filter fabric or turbidity curtains, drainage and interceptor swales, pipes or flumes shall be employed as needed to protect water quality downstream.</p> <p>BMP 3 Avoid Spills and Leaks. The District or its contractor shall ensure that equipment operating in and near the facility is in good working condition and free of leaks. No equipment maintenance and/or refueling shall occur within District facilities. Equipment used during construction and routine maintenance activities shall be parked outside of channels and/or washes on the road tops and/or adjacent roadway. All operations staff working with heavy equipment shall have been trained in the use of the equipment and in spill containment and response for any unforeseeable accidents that may occur. A spill kit shall always be kept on-site while construction or maintenance crews are working at the site. Special care shall be taken to prevent liquid paint from entering aquatic resources while painting associated with graffiti removal is conducted. Any spills that occur shall be reported to California State Warning Center (Cal OES) at (800) 852-7550. Additionally, a copy of the Cal OES California Hazardous Materials Spill/Release Notification Guidance shall be kept on-site while all maintenance activities take place. If necessary, operations staff shall follow up with the appropriate agencies as outlined in the Cal OES guidelines, which can be located on the Cal OES website at www.calema.ca.gov.</p> <p>BMP 4 Avoid Road Base Discharge. The District or its contractor shall not discharge road base, fill, sediment, concrete, and/or asphalt beyond the previously established roadbed when maintaining existing driveways and dirt access roads within the construction and maintenance activity area.</p> <p>BMP 5 Concrete Washout Protocols. The District or its contractor shall implement the appropriate waste management practices during on-site construction operations. Waste management practices shall be applied to the stockpiling of concrete, curing, and finishing of concrete as well as concrete washout operations. Waste management practices shall be adequate to ensure that all fluids associated with the curing, finishing, and washout of concrete shall not be discharged into any area with the potential to enter an aquatic resource. Further, all concrete waste shall be stockpiled separately from sediment and protected with erosion control measures to ensure that concrete dust and/or debris is not discharged into an aquatic resource. The District or its contractor shall determine the appropriate waste management practices based on considerations of flow velocities, site conditions, availability of stockpile locations, availability of erosion control materials, construction costs, and other requirements that may be outlined within the District's MS4 permits.</p> <p>BMP 6 Location of Temporary Stockpiles and Staging Areas. Stockpile locations and staging areas shall be located within the disturbed/graded areas outside of the facility bottom and at the tops of the levees/banks to the greatest feasible extent. Silt fences, berms, or other methods of erosion control may be used if stockpiles are to remain in designated areas for longer than 10 days. Additionally, heavy equipment may be staged on the access roads within the maintenance activity area, but shall be confined to those locations where potential pollutants cannot enter an aquatic resource.</p>		

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	<p>BMP 7 Location of Permanent Stockpiles. Any permanent or long-term stockpiles onsite shall be located outside of areas identified as Waters of the State and Waters of the U.S. Any material not placed onsite shall be removed by the District or its contractor and placed at the nearest Operations yard.</p> <p>BMP 8 Application of Pesticides, Herbicides, and Fertilizers. The District Aquatic Pesticides permit outlines a schedule of monitoring requirements, BMPs, and conditions designed to promote the reduction of pollutants in stormwater discharges. The permit (Order Number 2013-0002-DWQ) requires the District to manage pesticides and herbicide applications under specific criteria.</p> <p>General Requirements. Apply pesticides and herbicides in accordance with California Department of Pesticide Regulation requirements: (1) Read and follow manufacturers' label requirements before each application; (2) Check sprinkler system for overflows into the streets and storm drain; (3) As much as possible, utilize safer alternatives such as insecticidal soaps and horticultural oils.</p> <p>Herbicide Applicator Training Requirement. The San Bernardino County Department of Agriculture/Weights and Measures (Ag) is contracted by the District to spray various flood control facilities throughout the County for vegetation control. Many times, the Ag spray rigs are not able to spray close to fence lines and in tight areas. Spotty re-growth also occurs and is required to be re-sprayed.</p> <p>The District consulted with Ag to develop a plan for weed abatement that is an extension of Ag's current weed abatement program; using the same herbicide (Monsanto Roundup Pro Concentrate or similar glyphosate product). The application process has been approved by Ag and is determined not to require a California State Qualified Applicator License (QAL) or Certificate (CAC) per 3CCR section 6504. The District application of herbicide shall be under the constant monitoring of Ag, who will be dispensing the herbicide and conducting random monitoring inspections in the field. District staff shall complete daily records of herbicide use by amount and location. These logs shall be turned in to Ag monthly, to ensure no overuse of herbicides occurs.</p> <p>At least annually, Ag shall provide training to District staff consisting of:</p> <ol style="list-style-type: none"> 1. Classroom instruction on the laws and regulations governing the application of herbicides in the State of California. 2. Review of the functions of the Department of Agriculture/Weights and Measures Pest Management Division Written Employee Training Program for Pesticide Applicators, Herbicide Applications; including: <ol style="list-style-type: none"> a. Safety Procedures; b. MSDS for Monsanto Roundup Pro Concentrate (or similar glyphosate product), signs, symptoms & effects of exposure; c. Pesticide Safety Series N1, N2, N4, N5, N7, N8; d. Review of the Dept of Ag Pesticide Monitoring Inspection form; e. Instruction on completing and submission of the required daily use log; f. Practical demonstration of identification and proper use of items required for safe transport, mixing, pouring, application, clean up, storage, disposal of wastes, and emergency procedures associated with the Roundup Pro Concentrate (or similar glyphosate product) herbicide application procedure; g. The required personal protective equipment and hygiene practices. 		

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	<p>3. Employee will perform a proficiency demonstration of knowledge of the above training items.</p> <p>4. Employee will successfully complete a verbal/written post test on the above training. Herbicides shall be applied by the District on a limited basis. Licensing standards and procedures are established by DPR and are described in: 1998 California Code of Regulations, Title 3 (Food and Agriculture); and 1997 California Food and Agriculture Code (Divisions 6, 7, and 13).</p> <p>BMP 9 Invasive Plant Removal Protocols. Invasive plant species shall be removed in a manner that prevents propagation of those species in the same location and/or in other locations throughout the facility and/or County. Where maintenance activities are required, Operations staff shall spray and/or mow invasive plant species before seeds ripen. All cut/removed invasive vegetation shall be taken to an approved refuse facility as a load designated for destruction. Operations staff shall prevent cut stems and/or seed material from being transported downstream and/or being left behind to allow the seed to propagate. In the case of giant reed (<i>Arundo donax</i>) removal, the District shall minimize ground disturbance and use foliar glyphosate treatment on smaller infestations. Stems shall be removed only when the plants are determined to be dead and unable to re-sprout and/or propagate.</p> <p>BMP 10 Remove Debris. Remove litter and debris from facility as necessary.</p> <p>BMP 11 Wind Erosion. Prevent dust and wind erosion by applying water or other dust palliatives as necessary to reduce or alleviate dust nuisance generated by construction activities.</p> <p><u>District Responsibilities</u></p> <p>The District will prepare a SWPPP and follow BMPs throughout construction to minimize water quality impacts downstream.</p>		
Noise			
NOISE-1	<p><u>Mitigation Measure</u></p> <p><i>Proper Mufflers.</i> During all Project site construction, the construction contractors shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers, consistent with manufacturers' standards. The construction contractor shall place all stationary construction equipment so that emitted noise is directed away from the noise-sensitive receivers nearest the Project site.</p> <p><u>District Responsibilities</u></p> <p>The District shall ensure that all construction equipment mufflers are maintained as consistent with manufacturers' standards.</p>	Prior to and during construction	The District shall ensure compliance with this mitigation measure.
NOISE-2	<p><u>Mitigation Measure</u></p> <p><i>Siting Staging Areas.</i> The District or its construction contractor shall locate equipment staging in areas that will create the greatest distance between construction-related noise sources and noise-sensitive receivers nearest the Project site during all Project construction (i.e., south of Abbey Way).</p> <p><u>District Responsibilities</u></p> <p>The District shall locate staging areas at the greatest distance possible between noise sources and noise-sensitive receivers.</p>	Prior to and during construction	The District shall ensure compliance with this mitigation measure.

Table 1. Mitigation Monitoring and Reporting Program

MM #	Mitigation Measure and District Responsibilities	Timing	Agency Responsibilities
NOISE-3	<p><u>Mitigation Measure</u></p> <p><i>Delivery Routes.</i> The District or its contractor shall design delivery routes to minimize the exposure of sensitive land uses or residential dwellings to delivery truck-related noise.</p> <p><u>District Responsibilities</u></p> <p>The District shall design delivery routes to minimize noise impacts to sensitive receptors and maintain these routes during construction.</p>	Prior to and during construction	The District shall ensure compliance with this mitigation measure.
NOISE-4	<p><u>Mitigation Measure</u></p> <p><i>Notification of Construction.</i> Residences and other noise-sensitive land uses within 100 feet of Project construction shall be notified of the construction in writing. The notification shall describe the activities anticipated, provide dates and hours of activity, and provide contact information with a description of a noise and/or vibration complaint and response procedure. The notification shall also advise residents to remain indoors with windows closed when construction activity is occurring outside of their homes to avoid elevated exterior noise and/or vibration levels.</p> <p><u>District Responsibilities</u></p> <p>The District shall ensure that residences and other noise-sensitive land uses within 100 feet of Project construction receive written notification that includes Project activities, schedule, complaint procedures, and noise advisory procedures.</p>	Prior to and during construction	The District shall ensure compliance with this mitigation measure.
NOISE-5	<p><u>Mitigation Measure</u></p> <p><i>Noise Barriers or Relocation.</i> The following measures shall be implemented to reduce impacts at sensitive receiver locations (if occupied):</p> <ul style="list-style-type: none"> • Install the following temporary construction noise barriers at the minimum heights specified for each receiver location when Project construction activities are within 25 feet of occupied noise-sensitive residential homes: <ul style="list-style-type: none"> ○ Minimum 10-foot high temporary noise barriers for occupied residential homes represented by receiver locations R1, R2, R3, R5, R6, R7, R8, and R9. The District may elect to provide additional noise barrier coverage; ○ The temporary noise control barriers shall be located at the edge of Project construction activities and must have a solid face from top to bottom. The noise control barrier must meet the minimum height and be constructed as follows: <ul style="list-style-type: none"> ▪ The temporary noise barrier shall provide a minimum transmission loss of 20 dBA (Federal Highway Administration, Noise Barrier Design Handbook). The noise barrier shall be constructed using an acoustical blanket (e.g. vinyl acoustic curtains or quilted blankets) attached to the construction site perimeter fence or equivalent temporary fence posts. Example photos are provided in Appendix 7.3; ▪ The noise barrier must be maintained, and any damage promptly repaired. Gaps, holes, or weaknesses in the barrier or openings between the barrier and the ground shall be promptly repaired; ▪ The noise control barrier and associated elements shall be completely removed, and the site appropriately restored upon the conclusion of the construction activity. • Relocation and/or Hours Restrictions 	During construction	The District shall ensure compliance with this mitigation measure.

Table 1. Mitigation Monitoring and Reporting Program

MM #	Mitigation Measure and District Responsibilities	Timing	Agency Responsibilities
	<ul style="list-style-type: none"> If the above is not feasible then relocation of residents, and/or hours restrictions to day(s)/time(s) when the impacted receiver(s) are unoccupied, shall be provided for the duration of activities within 25 feet of the affected receiver location(s). <p><u>District Responsibilities</u></p> <p>The District shall ensure that noise barriers are installed properly to reduce noise impacts to residential homes. If noise barrier installation is infeasible, the District shall relocate residents, and/or implement hours restrictions to day(s)/time(s) when impacted receiver(s) are unoccupied.</p>		
NOISE-6	<p><u>Mitigation Measure</u></p> <p><i>Use of Non-Impact Pile Driving Equipment.</i> The use of impact pile driving equipment shall be prohibited. Instead, alternative pile driving methods and equipment (e.g., drilling or non-impact alternative) shall be used.</p> <p><u>District Responsibilities</u></p> <p>The District shall ensure that the use of impact pile driving equipment is prohibited.</p>	During construction	The District shall ensure compliance with this mitigation measure.
NOISE-7	<p><u>Mitigation Measure</u></p> <p><i>Protection of Sensitive Structures and Receptors.</i></p> <ul style="list-style-type: none"> Pre- and post-construction surveys of the nearby residential structure(s), documenting the condition of the interior and exterior of the structures, shall be provided for residential structures represented by receiver locations R3 and R8, adjacent to Tyler Street and the channel between Old Greenspot Road and Merris Street (refer to Appendix D, Exhibit 7-A). Ground-borne vibration monitoring of nearby residential structures, represented by receiver locations R1, R3, and R8 adjacent to the channel between Old Greenspot Road and Merris Street, shall be required for the duration of Project construction between Old Greenspot Road and Merris Street. The monitoring shall be based on the Caltrans residential building damage threshold of 0.3 in/sec PPV and 0.2 in/sec PPV County threshold for human annoyance. Though Caltrans identifies a residential building damage threshold of 0.3 in/sec PPV, the District may require that vibration levels do not exceed a more conservative threshold (e.g., lower) at their discretion. <p><u>District Responsibilities</u></p> <p>The District shall conduct pre- and post-construction surveys of the condition of residential structures adjacent to Tyler Street and the channel between Old Greenspot Road and Merris Street. The District shall also monitor ground-borne vibration of residential structures adjacent to the channel between Old Greenspot Road and Merris Street. Vibration thresholds will be based on the Caltrans residential building damage threshold or a more conservative threshold at the discretion of the District.</p>	Prior to and after construction	The District shall ensure compliance with this mitigation measure.
NOISE-8	<p><u>Mitigation Measure</u></p> <p><i>Limit Vibration Annoyance.</i> If monitored vibration levels exceed the County of San Bernardino 0.2 in/sec PPV annoyance threshold, then relocation of residents, and/or hours restrictions to day(s)/time(s) when the impacted receiver(s) are unoccupied, shall be provided for the duration of activities within 25 feet of the affected receiver location(s). The District may elect to implement this mitigation measure in advance of NOISE-7.</p>	During construction	The District shall ensure compliance with this mitigation measure.

Table 1. Mitigation Monitoring and Reporting Program

MM #	Mitigation Measure and District Responsibilities	Timing	Agency Responsibilities
	<p><u>District Responsibilities</u></p> <p>The District may elect to relocate residents and/or restrict hours to day(s)/time(s) to limit vibration annoyance at impacted receiver(s).</p>		
Hazards, Transportation, and Wildfire			
TR-1	<p><u>Mitigation Measure</u></p> <p><i>Construction Traffic Management Plan.</i> A construction traffic management plan shall be prepared by the District and/or its contractor that includes but is not limited to such measures as designated haul routes for trucks, travel time restrictions for trucks to avoid peak periods on selected roadways, designated site access locations, driveway turning restrictions, temporary lane/roadway closures and detour plans, temporary traffic controls and/or flaggers, and designated parking/staging locations for workers and equipment. This plan shall be subject to review, approval, and inspection by the District.</p> <p><u>District Responsibilities</u></p> <p>The District shall prepare a construction traffic management plan to be reviewed, inspected, approved by the District. The District shall ensure compliance with this plan through construction.</p>	Prior to and during construction	The District shall ensure compliance with this mitigation measure.
TR-2	<p><u>Mitigation Measure</u></p> <p><i>Notification to Property Owners and Tenants.</i> The District and/or its contractor shall provide advance written notification to affected property owners and tenants along the haul routes to inform them about the scheduling and duration of construction trucking activities and coordinate any special access or circulation concerns.</p> <p><u>District Responsibilities</u></p> <p>The District shall provide advance written notification to affected property owners and tenants regarding construction activities and coordinate any special access or circulation concerns.</p>	Prior to construction	The District shall ensure compliance with this mitigation measure.
TR-3	<p><u>Mitigation Measure</u></p> <p><i>Coordinate with Emergency Service Providers.</i> The District and/or its contractor shall coordinate with emergency service providers (i.e., police, fire, and ambulance/paramedic agencies) serving the project area prior to construction to provide information regarding haul routes, construction schedules, lane closures, etc. and ensure essential emergency access routes though the work area are available throughout construction.</p> <p><u>District Responsibilities</u></p> <p>The District shall coordinate with emergency service providers prior to construction to provide circulation information and ensure availability of emergency access routes. Coordination shall continue throughout construction as needed to ensure essential emergency access routes are maintained.</p>	Prior to and during construction	The District shall ensure compliance with this mitigation measure.