

**SAN BERNADINO VALLEY WATER CONSERVATION DISTRICT
THE PLUNGE CREEK CONSERVATION PROJECT
MITIGATION MONITORING AND REPORTING PROGRAM**

The San Bernardino Water Conservation District (SBVWCD) will undertake The Plunge Creek Conservation Project. The Project consists of the excavation of two pilot channels from the active channel of Plunge Creek, through the historic floodplain, and back to the active channel, with the primary goals of: 1) increasing the area of suitable habitat for the federally listed as endangered San Bernardino kangaroo rat (SBKR) and other sensitive species; and 2) increasing groundwater recharge opportunities without increasing the risk of flooding or erosion on non-District owned or managed land. The duration of the Project is approximately one month and includes sediment removal and relocation, channel scouring, and installation of water splitters. All elements from the project are derived directly from the channel material, placed in a manner to achieve the design results. The sediment removal would consist of heavy machinery removing cobbles, sands, and other fine sediments deposited in historic floods that are currently blocking old channels. The sediment removed during this part of the project would be used to build a wall that would protect an existing mine from flooding due to the scouring events that would occur in the newly restored channel. All sediment for this wall would be sourced locally. The proposed splitters would exist to assist in directing flow, allowing for control over which channels received the scouring flow and enabling water resource controllers to keep the active Plunge Creek channels in their current state as well. The project will occur over approximately 1.7 miles of Plunge Creek. The Project will impact 8 acres temporarily and 5.9 acres permanently. Of these impacts, 0.61 acre of permanent and 0.63 acre of ll be subject to Sections 404 and 401 of the Clean Water Act (CWA) and Section 1600 of the California Fish and Game Code (FGC).

As this project requires both state and local permits, staff prepared an Initial Study (IS) in compliance with the California Environmental Quality Act (CEQA). Through the IS, staff determined that mitigation measures were necessary to reduce potential impacts to less than significant. This Mitigation Monitoring and Reporting Program (MMRP) identifies the mitigation measures as identified in the IS that are required to reduce potential impacts.

The SBVWCD is responsible for ensuring implementation of all mitigation measures in the CEQA Initial Study/Mitigated Negative Declaration.

Additionally, the Project is specifically identified in the *Upper Santa Ana River Wash Habitat Conservation Plan, as Plunge Creek Habitat Enhancement (CD.06)*, (ICF, November 2016). As such, construction avoidance and minimization measures must be implemented. The SBVWCD is responsible for ensuring implementation of all construction avoidance and minimization measures, which are also identified in this document.

**SAN BERNADINO VALLEY WATER CONSERVATION DISTRICT
THE PLUNGE CREEK CONSERVATION PROJECT
MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure	Implementation Schedule	Verification	Status / Date / Initials / Comments
BIOLOGICAL RESOURCES			
<p>BIO-1 The project site shall be surveyed for nesting birds by a qualified avian biologist within three (3) days prior to initiating the construction activities. If active nests are found during the pre-construction nesting bird surveys, a Nesting Bird Plan (NBP) will be prepared and implemented. At a minimum, the NBP will include guidelines for addressing active nests, establishing buffers, monitoring, and reporting. The NBP will include a copy of maps showing the location of all nests and an appropriate buffer zone around each nest sufficient to protect the nest from direct and indirect impact. The size and location of all buffer zones, if required, shall be determined by the biologist, and shall be based on the nesting species, its sensitivity to disturbance, and expected types of disturbance. The nests and buffer zones shall be field checked weekly by a qualified biological monitor. The approved buffer zone shall be marked in the field with construction fencing, within which no vegetation clearing or ground disturbance shall commence until the qualified biologist has determined the young birds have successfully fledged and a monitoring report has been submitted reviewed and approved by the SBVWCD</p>	<p>At least 3 days prior to ground disturbance</p>	<p>Visual inspection by qualified biologist</p>	
<p>BIO-2 Prior to ground disturbing activities, a qualified biologist should conduct a nocturnal and diurnal preconstruction survey for western spadefoot and California glossy snake within the fenced footprint. If either species is found they will be relocated outside of the work area.</p>	<p>At least 5 days prior to ground disturbance</p>	<p>Visual inspection by qualified biologist</p>	

**SAN BERNADINO VALLEY WATER CONSERVATION DISTRICT
THE PLUNGE CREEK CONSERVATION PROJECT
MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure	Implementation Schedule	Verification	Status / Date / Initials / Comments
CULTURAL RESOURCES			
CUL 1 In the event that evidence of historic activities is unearthed during construction activities, work in the immediate vicinity of the find will be stopped and a qualified archaeologist will be contacted to assess the find and recommend appropriate mitigation. No disturbance shall occur in the vicinity of the find until the site is evaluated by the archaeologist and the find is recorded or treated per the recommendations of the qualified archaeologist.	Throughout the duration of construction	Construction foreman and SBVWCD project manage	
CUL-2 In the event that human remains are discovered, there shall be no disposition of such human remains, other than in accordance with the procedures and requirements set forth in California Health and Safety Code Section 7050.5 and Public Resources Code Section 5097.98. These code provisions require notification of the County Coroner and the Native American Heritage Commission, who in turn must notify those persons believed to be most likely descended from the deceased Native American for appropriate disposition of the remains. Excavation or disturbance may continue in other areas of the project site that are not reasonably suspected to overlie adjacent remains or archaeological resources.	Throughout the duration of construction	Construction foreman and SBVWCD project manage	
GEOLOGY AND SOILS			
GEO-1 The contractor will provide to the County of San Bernardino an Erosion Control Report (ECR) that will identify the Best Management Practices (BMPs) for managing the stockpiles. The BMPs may include but not be limited to the following: <ul style="list-style-type: none"> • Locate stockpiles away from active drainage courses, drain inlets or concentrated flows of storm water. 	At least 10 days prior to construction	Construction foreman and SBVWCD project manage	

**SAN BERNADINO VALLEY WATER CONSERVATION DISTRICT
THE PLUNGE CREEK CONSERVATION PROJECT
MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure	Implementation Schedule	Verification	Status / Date / Initials / Comments
<ul style="list-style-type: none"> • For wind erosion control, apply water or other dust palliative to stockpiles. Smaller stockpiles may be covered as an alternative. • Place bagged materials on pallets under cover. • During the rainy season, non-active silty or highly erodible soil stockpiles will be covered with heavy plastic and the stockpile contained within a temporary perimeter sediment barrier, such as berms, dikes, silt fences, or sandbag barriers. A soil stabilization measure may be used in lieu of cover. • During the non-rainy season prior to the onset of rain, the silty or highly erodible stockpile should either be covered or protect them with temporary perimeter sediment barriers. • Year-round, active silty or highly erodible soil stockpiles will be protected with temporary linear sediment barriers prior to the onset of rain. • The main haul road will be graded and watered at least once per day, or as often as necessary to control dust as required by the South Coast Air Quality Management District (SCAQMD). 			
HAZARDS AND HAZARDOUS MATERIALS			
HAZ-1 The Department of Toxic Substances Control (DTSC) and San Bernardino County Fire Department Hazardous Materials Division shall be immediately notified in the event malodorous or discolored soils, liquids, containers, or other materials known or suspected to contain hazardous materials and/or contaminants are encountered during	Immediately upon discovery of a hazardous spill	Construction foreman and SBVWCD project manager	

**SAN BERNADINO VALLEY WATER CONSERVATION DISTRICT
THE PLUNGE CREEK CONSERVATION PROJECT
MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure	Implementation Schedule	Verification	Status / Date / Initials / Comments
<p>activities associated with the proposed project. Earthmoving activities in the vicinity of said material shall be halted until the extent and nature of the suspect material is determined by qualified personnel (as determined by the DTSC). The removal and/or disposal of any such contaminants shall be in accordance with all applicable local, State, and Federal standards.</p>			
<p>HAZ-2 In the event of any identification of or spill of hazardous materials and/or contaminants in the construction area, the party whose activity resulted in the spill or release shall notify the SBVWCD of the location, extent, and nature of the spill or release. The SBVWCD shall thereupon assess the depth to groundwater in the area of the release, and if it appears that groundwater tables are high enough to create a potential for exposure of the groundwater table to the spill or release, will modify its recharge operations as much as feasible to prevent groundwater table intersection with the identified spill or release.</p>	<p>Immediately upon discovery of a hazardous spill</p>	<p>Construction foreman and SBVWCD project manager</p>	
<p>HAZ-3 During construction, all staging areas, welding areas, or areas slated for construction using spark-producing equipment will be cleared of dried vegetation or other material that could ignite. Spark arresting equipment shall be in good working order. SBVWCD shall require all vehicles and crews working at the project site to have access to functional fire extinguishers at all times. In addition, construction crews are required to have a spotter during welding activities to look out for potentially dangerous situations, including accidental sparks. The contractor also shall provide a safety plan for the implementation of additional protocols when the National Weather Service issues a Red Flag Warning. Such protocols should address smoking and fire rules, storage and parking areas, use of gasoline-powered tools, use of spark arresters</p>	<p>Throughout construction</p>	<p>Construction foreman and SBVWCD project manager</p>	

**SAN BERNADINO VALLEY WATER CONSERVATION DISTRICT
 THE PLUNGE CREEK CONSERVATION PROJECT
 MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure	Implementation Schedule	Verification	Status / Date / Initials / Comments
on construction equipment, road closures, use of a fire guard, fire suppression tools, fire suppression equipment, and training requirements.			

**SAN BERNADINO VALLEY WATER CONSERVATION DISTRICT
THE PLUNGE CREEK CONSERVATION PROJECT
MITIGATION MONITORING AND REPORTING PROGRAM**

Construction Avoidance and Minimization Measure	Implementation Schedule	Verification	Status / Date / Initials / Comments
HCP CONSTRUCTION AVOIDANCE AND MINIMIZATION MEASURES			
<p><u>Sediment Control</u></p> <ul style="list-style-type: none"> • Construction activity and access roads will be minimized to the extent practicable in all drainages, streams, pools, or other features that could be under the jurisdiction of the USACE, State Water Board, and/or CDFW. If impacts on these features are identified, a formal jurisdictional delineation and permit applications to the regulatory agencies may be required. • When stream flows must be diverted, the diversions will be conducted using sandbags or other methods requiring minimal instream impacts. Silt fencing or other sediment trapping materials will be installed at the downstream end of construction activity to minimize the transport of sediments off site. Settling ponds where sediment is collected will be cleaned out in a manner that prevents the sediment from reentering the stream. Care will be exercised when removing silt fences, as feasible, to prevent debris or sediment from returning to the stream. • Erodible fill material will not be deposited into water courses. Brush, loose soils, or other similar debris material will not be stockpiled within the stream channel or on its banks. • Covered Activities near to or within the HCP Preserve or other natural areas will incorporate plans to ensure that runoff discharged is not altered in an adverse way when compared with existing conditions, which includes landscape irrigation. Stormwater systems will be designed to prevent the release of sediments, toxins, chemicals, petroleum products, exotic plant materials, or other elements that might degrade or harm biological resources or ecosystem processes within the HCP Preserve. 	Throughout construction	Construction foreman and SBVWCD project manager	

**SAN BERNADINO VALLEY WATER CONSERVATION DISTRICT
THE PLUNGE CREEK CONSERVATION PROJECT
MITIGATION MONITORING AND REPORTING PROGRAM**

<p><u>Species Protection</u></p> <p><i>Slender-horned Spineflower</i></p> <ul style="list-style-type: none"> • Covered Activities that will result in permanent impacts where the location has not yet been determined (e.g., new wells) will avoid occupied spineflower habitat. An exception can be made upon approval of the Wildlife Agencies if the Permittee or Participating Entity can demonstrate that (1) no alternative sites were feasible, (2) the impact will not result in the loss or compromise of the entire spineflower patch, and (3) the loss of plants will be fully mitigated. • Prior to ground disturbance from Covered Activities in suitable spineflower habitat, surveys will be conducted if the area has not been surveyed within the last 5 years to determine if the plant is present. Surveys will be conducted in accordance with the CDFW protocols for surveying Special Status plant populations. • If spineflower are detected during pre-project surveys, seeds will be collected for 4 years prior to ground disturbance. Seed collection and storage will be by an entity which has a Memorandum of Understanding with the USFWS to process and handle the seeds of endangered plant taxa. • Surface soils will be removed and sequestered at the beginning of any ground disturbing construction or O&M activity where spineflower is present. If cryptogamic soil crust is also present, it will be harvested in blocks, preserved, and placed back on the site after construction. If the impacts are permanent, an alternate site in suitable habitat will be selected in consultation with a qualified botanist or restoration biologist. After the sequestered soil is returned to the site, it will be replanted with the previously collected spineflower seed over consecutive years following the ground disturbance. The timing and methods of planting will be determined by the Permittee in consultation with 	<p>Throughout construction, as prescribed by the HCP</p>	<p>Construction foreman and SBVWCD project manager</p>	
---	--	--	--

**SAN BERNADINO VALLEY WATER CONSERVATION DISTRICT
THE PLUNGE CREEK CONSERVATION PROJECT
MITIGATION MONITORING AND REPORTING PROGRAM**

<p>a restoration biologist and will incorporate adaptive management.</p> <ul style="list-style-type: none"> • The replanting site will be monitored and maintained (e.g., weed control) for 5 years or until the spineflower is considered to be re-established to target values established by the Preserve Management Committee. Maintenance weeding will continue after the restoration weeding as part of the annual maintenance program. • No aggregate mining or other Covered Activities will be permitted in the spineflower contingency parcel (Section 11 between the existing quarries) until it has been determined the biological objective for establishing new, persistent spineflower patches (SHSF Objective 3) has been met. Upon meeting the performance standards in the objective, the Permittee will provide a report documenting success to the Wildlife Agencies for their review and approval. Upon approval of the report in writing, aggregate mining of the contingency parcel can commence. • When Covered Activities will take place within 50 meters of known occurrences of spineflower, a temporary fence will be erected to protect them. A qualified botanist and/or biological monitor will monitor construction activities, maintain the markers limiting construction, and maintain the fence protecting the spineflower to prevent accidental disturbance. <p><i>Santa Ana River woolly-star</i></p> <ul style="list-style-type: none"> • New construction projects in occupied woolly-star habitat will be avoided if feasible. For projects where the exact location of the facility has not been determined the Permittee or Participating Entity must consider alternatives outside of occupied habitat. If an alternative in occupied habitat is selected, the Participating Entity must demonstrate to the Permittee and or Wildlife 			
--	--	--	--

**SAN BERNADINO VALLEY WATER CONSERVATION DISTRICT
THE PLUNGE CREEK CONSERVATION PROJECT
MITIGATION MONITORING AND REPORTING PROGRAM**

<p>Agencies why it was not possible to locate the project in unoccupied habitat.</p> <ul style="list-style-type: none"> • Prior to ground disturbance from new construction and O&M activities in potentially suitable woolly-star habitat, surveys will be conducted if the area has not been surveyed within the last 5 years to determine if the plant is present. Surveys will be conducted in accordance with the CDFW protocols for surveying Special Status plant populations. • If woolly-star is detected during pre-project surveys, seeds will be collected at the appropriate time (usually fall) prior to ground disturbance. Seed collection and storage will be by an entity that has a Memorandum of Understanding with the USFWS to process and handle the seeds of endangered plant taxa. In areas of temporary impacts, the seed will be replanted in the temporarily disturbed area. The seed planting time and location for seeds collected from permanent impact areas will be at the discretion of the land manager. The cost of seed collection, up to 2 years of storage, and planting will be borne by the relevant Permittee or Participating Entity. • Sites where temporary impacts occur will be replanted with the previously collected woolly-star seed over consecutive years following the ground disturbance. The timing and methods of planting will be determined by the Permittee in consultation with a qualified botanist or restoration biologist with woolly-star experience, and will incorporate adaptive management. If the impacts are permanent, an alternate site in suitable habitat will be selected by a qualified restoration biologist or botanist. • The replanting site will be monitored and maintained (e.g., weed control) for 2 years or until the woolly-star is considered to be re-established to target values established by the HCP Preserve Management Committee. Maintenance weeding will continue 			
---	--	--	--

**SAN BERNADINO VALLEY WATER CONSERVATION DISTRICT
THE PLUNGE CREEK CONSERVATION PROJECT
MITIGATION MONITORING AND REPORTING PROGRAM**

<p>after the restoration weeding as part of the annual maintenance program.</p> <ul style="list-style-type: none"> • When Covered Activities will take place within 50 meters of known occurrences of woolly-star, a temporary fence will be erected to protect them. A qualified botanist and/or biological monitor will monitor construction activities, maintain the markers limiting construction, and maintain the fence protecting the woolly-star, to prevent accidental disturbance. <p><i>San Bernardino Kangaroo Rat</i></p> <ul style="list-style-type: none"> • New construction in areas assessed as medium or high quality habitat for SBKR will be avoided if feasible. For projects where the exact location of the facility has not been determined the relevant Permittee or Participating Entity must consider alternatives outside of medium or high quality areas. If the selected alternative is in a medium or high quality area, the project proponent must demonstrate to the Permittee and the Wildlife Agencies why it could not be located in a lower quality habitat. • If a ground-disturbing activity from new construction or O&M occurs in an area assessed as medium or high quality for SBKR, and is equal to or less than 3 acres, a temporary exclusionary fence meeting USFWS standards will be placed and maintained around the perimeter of the site. The area inside the fence will be trapped for SBKR by a qualified biologist during the 5 nights preceding the ground disturbance. Any trapped animals will be relocated to the nearest undisturbed habitat outside the construction area. • When new construction or O&M activities with temporary ground disturbance occurs, including trenching, in SBKR habitat, the top 20 inches of soil/substrate will be segregated, preserved, and placed back in the same location and approximate 			
--	--	--	--

**SAN BERNADINO VALLEY WATER CONSERVATION DISTRICT
THE PLUNGE CREEK CONSERVATION PROJECT
MITIGATION MONITORING AND REPORTING PROGRAM**

<p>configuration when the trench is backfilled. It will be compacted to within 5% of the average compaction of the natural substrate. If significant (over 30%) invasive weed cover is found, the topsoil will not be replaced in the top uncompacted fill but will be used for lower compacted backfill. In all cases the top 20 inches will be uncompacted and as suitable for SBKR burrowing as possible.</p> <ul style="list-style-type: none"> • For planned ground disturbance in areas assessed as medium or high-quality habitat for SBKR that are greater than 3 acres in size, the nearest suitable relocation site will be identified by a qualified biologist in consultation with the Permittee and the USFWS. The translocation site will typically be an area of trace or low-quality habitat with suitable substrate, which has recently been restored. Once the relocation site has been identified, exclusionary fencing will be erected, and the area inside the fence will be trapped by a qualified biologist during the 5 nights preceding construction. Temporary burrows will be constructed at the relocation site for relocated animals. • Prior to grading dirt access roads, other than roads within mining operations areas, a qualified biologist will trap the road and 15 meters on either side during the 5 nights preceding the grading. Trapped animals will be held until the completion of grading and then returned to the location where they were trapped. • A qualified biologist or biological monitor with SBKR expertise will be present when construction or ground-disturbing O&M activities that could result in take of SBKR occurs in, or within 100 meters of SBKR habitat which is classified as low, medium, or high habitat potential for SBKR. <p><i>Coastal California Gnatcatcher (suitable habitat on site)</i></p> <ul style="list-style-type: none"> • Covered Activities resulting in permanent impacts on gnatcatcher will be avoided if feasible. Where the exact location of the facility has not yet been determined (e.g., new wells) the 			
---	--	--	--

**SAN BERNADINO VALLEY WATER CONSERVATION DISTRICT
THE PLUNGE CREEK CONSERVATION PROJECT
MITIGATION MONITORING AND REPORTING PROGRAM**

<p>relevant Permittee or Participating Entity must consider alternatives outside of occupied habitat. If an alternative in nesting habitat is selected, the Permittee or Participating Entity must demonstrate to the Permittee and or the Wildlife Agencies why it was not possible to locate the project in non-nesting habitat. Participating Entities will provide information in their COI application substantiating a determination that locating their proposed project in non-nesting habitat was not possible.</p> <ul style="list-style-type: none"> • New construction and O&M activities will be avoided to the extent feasible during the gnatcatcher breeding season. If a Covered Activity resulting in significant vegetation disturbance takes place during the nesting season, February 15 to August 30, a qualified biologist will conduct pre-activity nest surveys. The area to be disturbed and a 500-foot buffer will be surveyed for 5 consecutive days to determine if gnatcatchers are nesting in or near the construction or operations and maintenance area. If gnatcatchers are nesting, a 300-foot buffer will be established and maintained between the Covered Activity and the nest area until nesting is completed. Noise within the buffer area will not exceed 60dB(A) Leq. <p><i>Migratory Birds</i></p> <ul style="list-style-type: none"> • If construction-related activities are to occur during the nesting season (February 1 through September 15), a qualified biologist will conduct a preconstruction survey of the proposed construction area and an appropriate buffer. This preconstruction survey will commence no more than 72 hours prior to the onset of construction. If an active nest is observed, an appropriate buffer will be established until nesting is completed. 			
---	--	--	--

**SAN BERNADINO VALLEY WATER CONSERVATION DISTRICT
THE PLUNGE CREEK CONSERVATION PROJECT
MITIGATION MONITORING AND REPORTING PROGRAM**

AB 52 Wash Plan Consultation	Implementation Schedule	Verification	Status / Date / Initials / Comments
<p><i>Morongo Band of Mission Indians</i></p> <p><i>Consultation:</i> Did not Consult</p> <p><i>Staff Recommendation:</i> None</p> <p><i>Soboba Band of Luiseno Indians</i></p> <p><i>Consultation:</i></p> <ul style="list-style-type: none"> • “remnant” water facilities • Federal 106 Consultation <p><i>Staff Recommendation:</i> Notification and consultation with “consulting tribes” BLM Notification by tribe</p> <p><i>Gabrielano Band of Mission Indians</i></p> <p><i>Consultation:</i> Burial sites along riparian corridor</p> <p><i>Staff Recommendation:</i></p> <ul style="list-style-type: none"> • Notification of ground disturbance • Qualified monitors allowed on site <p><i>San Manuel Band of Mission Indians</i></p> <p><i>Consultation:</i></p> <ul style="list-style-type: none"> • Limitations of MOU for gathering • Herbicide use and gathering • Culturally important non-native plants • Cultural resource report incomplete <p><i>Staff Recommendation:</i></p> <ul style="list-style-type: none"> • No limitations on area, only volume • Notification of tribe prior to herbicide use • Tree tobacco area set aside Addendum to report 	<p>Throughout construction</p>	<p>Construction foreman and SBVWCD project manager</p>	