

Rosedale Ranch Improvement District

R-3 Groundwater Recharge and Banking Project

MITIGATION MONITORING AND REPORTING PROGRAM

The Mitigation Monitoring and Reporting Program (MMRP) is a CEQA-required component of the Mitigated Negative Declaration (MND) process for the R-3 Groundwater Recharge and Banking Project (Project). The results of the environmental analyses, including proposed mitigation measures, are documented in the Final MND. CEQA requires that agencies adopting MNDs take affirmative steps to determine that approved mitigation measures are implemented subsequent to project approval. As part of the CEQA environmental review procedures, Public Resources Code (PRC) Section 21081.6 requires a public agency to adopt a monitoring and reporting program to ensure efficacy and enforceability of any mitigation measures applied to a proposed project. The lead agency (i.e., Rosedale Ranch Improvement District [District]) must adopt an MMRP for mitigation measures incorporated into the project or proposed as conditions of approval. The MMRP must be designed to ensure compliance during project implementation. As stated in PRC Section 21081.6(a)(1):

The public agency shall adopt a reporting or monitoring program for the changes made to the project or conditions of project approval, adopted in order to mitigate or avoid significant effects on the environment. The reporting or monitoring program shall be designed to ensure compliance during project implementation. For those changes which have been required or incorporated into the project at the request of a responsible agency or a public agency having jurisdiction by law over natural resources affected by the project, that agency shall, if so requested by the lead agency or a responsible agency, prepare and submit a proposed reporting or monitoring program.

The MMRP is provided in **Table 1**. The table lists each of the mitigation measures proposed in the Final MND and specifies the agency responsible for implementation of the mitigation measure and the time period for the mitigation measure.

Table 1. Mitigation Monitoring and Reporting Program

Potential Environmental Impact	Mitigation Measure	Responsible Agency	Timing
Air Quality	<p>Mitigation Measure AQ-1: District Regulation VIII Fugitive PM₁₀ Prohibitions Best Management Practices.</p> <p>To minimize potential effects of Project construction on air quality, specifically PM₁₀ fugitive dust, and oxides of nitrogen:</p> <ul style="list-style-type: none"> • Apply water to unpaved surfaces and areas • Use non-toxic chemical or organic dust suppressants on unpaved roads and traffic areas • Limit or reduce vehicle speed on unpaved roads and traffic areas • Maintain areas in a stabilized condition by restricting vehicle access • Install wind barriers • During high winds, cease outdoor activities that disturb the soil • Keep bulk materials sufficiently wet when handling • Store and hand material in a three-sided structure • When storing bulk material, apply water to the surface or cover the stage pile with a tarp • Don't overload haul trucks. Overlanded trucks are likely to spill bulk materials 	RRID and construction contractor	Prior to and during construction

Potential Environmental Impact	Mitigation Measure	Responsible Agency	Timing
	<ul style="list-style-type: none"> Cover haul trucks with a tarp or other suitable cover. Or, wet the top of the load enough to limit visible dust emissions Clean the interior of cargo compartments on emptied haul trucks prior to leaving the site Prevent track-out by installing a track-out control device Clean up track-out at least once a day. If along a busy road or highway, clean up track-out immediately Monitor dust-generating activities and implement appropriate measures for maximum dust control 		

Biological Resources

Mitigation Measure BIO-1: Conduct Worker Environmental Awareness Training.

To minimize potential effects of Project construction on special-status wildlife, the District will ensure that the following measure is implemented:

- An Environmental Awareness Program will be presented to all Project personnel working in the field before Project activities begin. The program will be presented by a qualified biologist with knowledge of special-status wildlife that could occur on the Project sites. The program will address each species biology and habitat needs; status of each species and their regulatory protections; and measures required to reduce impacts to the species during Project construction.

NKWSD and construction contractor

Prior to and during construction

Potential Environmental Impact	Mitigation Measure	Responsible Agency	Timing
	<p>Mitigation Measure BIO-2a: Conduct Focused Surveys for Burrowing Owls and Avoid Loss of Occupied Burrows.</p> <p>To minimize potential effects of Project construction on burrowing owl, the District will ensure that the following measures are implemented, consistent with the Staff Report on Burrowing Owl Mitigation (CDFG 2012).</p> <ul style="list-style-type: none"> • A qualified biologist will assess burrowing owl habitat suitability in the area subject to direct impact and adjacent areas within 500 feet. • If suitable habitat or sign of burrowing owl presence is observed, a take avoidance survey will be conducted within 10 days before construction activities begin near areas of suitable habitat. • If any occupied burrows are observed, protective buffers will be established and implemented. A qualified biologist will monitor the occupied burrows during construction activities to confirm effectiveness of the buffers. The size of the buffer will depend on type and intensity of disturbance, presence of visual buffers, and other variables that could affect susceptibility of the owls to disturbance. • If destruction of an occupied burrow cannot be avoided and it is determined, in consultation with CDFW, that passive exclusion of owls from the construction footprint is an appropriate means of minimizing direct impacts, an exclusion and relocation plan will be developed and implemented in coordination with CDFW. Passive 	RRID and construction contractor	Prior to and during construction

Potential Environmental Impact	Mitigation Measure	Responsible Agency	Timing
	<p>exclusion will not be conducted during the breeding season (February 1 through August 31), unless a qualified biologist verifies through noninvasive means that either (1) the birds have not begun egg laying or (2) juveniles from the occupied burrows are foraging independently and are capable of independent survival.</p> <ul style="list-style-type: none"> • If passive exclusion is conducted, each occupied burrow that is destroyed will be replaced with at least one artificial burrow on a suitable portion of the recharge site that would not be subject to inundation or ground disturbance. 		
	<p>Mitigation Measure Bio-2b: Conduct Focused Surveys for Nesting Swainson’s Hawks and White-tailed Kites and Implement Take Avoidance Plan for Active Nests.</p> <p>To minimize potential effects of project construction on active Swainson’s hawk and white-tailed kite nests, the District will ensure that the following measures are implemented:</p> <ul style="list-style-type: none"> • If construction activities would occur during the Swainson’s hawk nesting season (April-August), a qualified biologist will conduct surveys of potential Swainson’s hawk nesting trees within 0.5 mile of the project site. To the extent practicable, depending on timing of construction initiation, surveys will be conducted in accordance with the Recommended Timing and Methodology for Swainson’s Hawk Nesting Surveys in California’s Central Valley (Swainson’s Hawk Technical Advisory Committee 2000). At a minimum, at least one 		

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	<p>survey will be conducted within 10 days before construction activities begin during the nesting season. If a lapse in construction activities of 10 days or longer occurs, another focused survey will be conducted before activities resume during the nesting season.</p> <ul style="list-style-type: none"> • If construction would begin during the white-tailed kite nesting season (March 1-August 31), a qualified biologist will conduct surveys of potential white-tailed kite nesting trees within 0.5 mile of the project site. The survey will be conducted no more than 10 days before construction activities begin during the nesting season. If a lapse in construction activities of 10 days or longer occurs, another focused survey will be conducted before activities resume during the nesting season. • If an active Swainson's hawk or white-tailed kite nest is found, a qualified biologist will prepare a site-specific take avoidance plan to comply with CESA and the FGC. Measures may include but are not limited to nest-specific no disturbance buffers, biological monitoring, rescheduling construction activities around sensitive periods for the species (e.g., nest establishment), and/or implementing construction best practices, such as staging equipment out of the species' line of sight from the nest tree. The avoidance/protection measures will be established before construction activities begin and continue until the adult and young birds are no longer reliant on the nest site. 		

Potential Environmental Impact	Mitigation Measure	Responsible Agency	Timing
	<p>Mitigation Measure BIO-2c: Conduct Focused Surveys for Other Nesting Birds and Implement Buffers Around Active Nests.</p> <p>To minimize potential effects of proposed Project construction on active nests of other special-status birds and common birds protected by State and Federal regulations, the District will ensure that the following measures are implemented:</p> <ul style="list-style-type: none"> • If construction would occur during the bird nesting season (February-August), a qualified biologist will conduct surveys of 1) suitable nesting habitat for common birds within 100 feet of construction activities, 2) suitable nesting habitat for non-raptor special-status birds within 300 feet of construction activities, and 3) suitable nesting habitat for raptors other than those addressed in BIO-2a and BIO-2b within 500 feet of construction activities. Surveys will be conducted within 10 days before construction activities begin during the nesting season. If a lapse in construction activities of 10 days or longer occurs, another focused survey will be conducted before activities resume during the nesting season. • If any active bird nests are observed, a qualified biologist will prepare a site-specific take avoidance plan to comply with applicable State and Federal regulations. If an active tricolored blackbird nesting colony is found during preconstruction surveys, a minimum 300-foot no-disturbance buffer will be implemented in accordance with CDFW’s Staff Guidance Regarding Avoidance of 	RRID and construction contractor	Prior to and during construction

Potential Environmental Impact	Mitigation Measure	Responsible Agency	Timing
	<p>Impacts to Tricolored Blackbird Breeding Colonies on Agricultural Fields in 2015 (CDFW 2015), or more recent guidance if issued, until the breeding season has ended or until a qualified biologist has determined that nesting has ceased and the young have fledged and are no longer reliant upon the colony or parental care for survival. Measures for other species may include but are not limited to nest-specific no disturbance buffers, biological monitoring, rescheduling construction activities around sensitive periods for the species (e.g., nest establishment), and/or implementing construction best practices, such as staging equipment out of the species' line of sight from the nest tree. The avoidance/protection measures will be established before construction activities begin and continue until the adult and young birds are no longer reliant on the nest site. A qualified biologist will observe behavior of the nesting birds and young and confirm project activities do not cause disturbance that could result in nest abandonment, reduced care of eggs or young, or premature fledging. A qualified biologist may adjust the buffer, if appropriate, based on monitoring observations.</p>		
	<p>Mitigation Measure BIO-3: Conduct Focused Surveys and Implement Measures to Minimize Potential for Impacts on San Joaquin Kit Fox. To minimize potential effects of proposed Project construction on San Joaquin kit fox, the District will ensure that the following measures are implemented:</p>	<p>RRID and construction contractor</p>	<p>Prior to and during construction.</p>

Potential Environmental Impact	Mitigation Measure	Responsible Agency	Timing
	<ul style="list-style-type: none"> No more than 30 days before construction activities begin, a qualified biologist will conduct a pre-construction survey to determine the potential for a San Joaquin kit fox den to occur in the area. If potential or known den for San Joaquin kit fox is found, an exclusion zone will be established and maintained, in accordance with the Standardized Recommendations for Protection of the Endangered San Joaquin Kit Fox (USFWS 2011). If construction activity would occur within 50 feet of a potential den (i.e., a den that is not known to be occupied), monitoring will be conducted at the potential den for 4 consecutive days. If no San Joaquin kit fox activity is documented, construction activities can proceed. If San Joaquin kit fox activity is documented, the appropriate exclusion zone will be established and maintained, in accordance with the Standardized Recommendations for Protection of the Endangered San Joaquin Kit Fox (USFWS 2011). To prevent kit fox entrapment during construction, all excavated, steep-walled holes or trenches more than 2 feet deep will be covered with plywood or similar material at the end of each workday. If the trenches cannot be closed, one or more escape ramps of no more than a 45-degree slope will be constructed of earthen fill or created with wooden planks. All covered or uncovered excavations will be inspected at the beginning, middle, and end of each day. Before trenches are filled, they will 		

Potential Environmental Impact	Mitigation Measure	Responsible Agency	Timing
	<p>be inspected for trapped animals. If a trapped kit fox is discovered, construction activities in and near the excavation will stop, and escape ramps or structures will be installed immediately to allow the animal to leave voluntarily. Construction activities will not resume until the animal has left the area.</p> <ul style="list-style-type: none"> • All construction pipes or similar structures with a diameter of 4 inches or greater that are stored on the ground at a construction site for one or more overnight periods will be thoroughly inspected for wildlife before the pipe is buried, capped, or otherwise used or moved in any way. Pipes laid in trenches overnight will be capped. If a potential San Joaquin kit fox is discovered inside a pipe, all construction activities near the pipe will stop, and the animal will be allowed to leave the pipe voluntarily. Construction activities will not resume until the animal has left the area. • All food-related trash items such as wrappers, cans, bottles, or food scraps generated during construction activities will be disposed of in closed containers and removed daily from the recharge site. No deliberate feeding of wildlife will be allowed, and no pets associated with construction personnel will be permitted on the recharge site. 		
Cultural			

Potential Environmental Impact	Mitigation Measure	Responsible Agency	Timing
	<p>Mitigation Measure CR-1: Address Previously Undiscovered Historic Properties, Archaeological Resources, and Tribal Cultural Resources.</p> <p>If cultural resources are identified during project-related ground-disturbing activities, all potentially destructive work in the immediate vicinity of the find should cease immediately and the District should be notified. In the event of an inadvertent discovery, additional CEQA review would be necessary to make a determination on a properties' eligibility for listing in the CRHR and any actions that would be necessary to avoid adverse effects. A qualified archaeologist should assess the significance of the find, make a preliminary determination, and if appropriate, provide recommendations for treatment. Any treatment plan should be reviewed by the District prior to implementation. Ground-disturbing activities should not resume near the find until treatment, if any is recommended, the find is complete or if the qualified archaeologist determines the find is not significant.</p>	RRID and construction contractor	Prior to and during construction
	<p>Mitigation Measure CR-2: Avoid Potential Effects on Undiscovered Burials.</p> <p>If human remains are found, the District will be immediately notified. The California Health and Safety Code requires that excavation be halted in the immediate area and that the county coroner be notified to determine the nature of the remains. The</p>	RRID and construction contractor	During construction

Potential Environmental Impact	Mitigation Measure	Responsible Agency	Timing
	<p>coroner is required to examine all discoveries of human remains within 48 hours of receiving notice of a discovery on private or state lands (Health and Safety Code, Section 7050.5[b]). If the coroner determines that the remains are those of a Native American, the coroner must contact the Native American Heritage Commission (NAHC) by telephone within 24 hours of making that determination (Health and Safety Code, Section 7050.5[c]).</p> <p>Once notified by the coroner, the NAHC shall identify the person determined to be the Most Likely Descendant (MLD) of the Native American remains. With permission of the legal landowner(s), the MLD may visit the site and make recommendations regarding the treatment and disposition of the human remains and any associated grave goods. This visit should be conducted within 24 hours of the MLD's notification by the NAHC (Public Resources Code [PRC], Section 5097.98[a]). If a satisfactory agreement for treatment of the remains cannot be reached, any of the parties may request mediation by the NAHC (PRC, Section 5097.94[k]). Should mediation fail, the landowner or the landowner's representative must reinter the remains and associated items with appropriate dignity on the property in a location not subject to further subsurface disturbance (PRC, Section 5097.98[b]).</p>		

Potential Environmental Impact	Mitigation Measure	Responsible Agency	Timing
Geology	<p>Mitigation Measure GEO-1: Avoid Potential Effects on Paleontological Resources.</p> <p>In the event that a paleontological resource is uncovered during Project implementation, all ground-disturbing work within 165 feet (50 meters) of the discovery shall be halted. A qualified paleontologist shall inspect the discovery and determine whether further investigation is required. If the discovery can be avoided and no further impacts will occur, no further effort shall be required. If the resource cannot be avoided and may be subject to further impact, a qualified paleontologist shall evaluate the resource and determine whether it is “unique” under CEQA, Appendix G, part VII. The determination and associated plan for protection of the resource shall be provided to the District for review and approval. If the resource is determined not to be unique, work may commence in the area. If the resource is determined to be a unique paleontological resource, work shall remain halted, and the paleontologist shall consult with the District staff regarding methods to ensure that no substantial adverse change would occur to the significance of the resource pursuant to CEQA. Preservation in place (i.e., avoidance) is the preferred method of mitigation for impacts to paleontological resources and shall be required unless there are other equally effective methods. Other methods may be used but must ensure</p>	RRID and construction contractor	Prior to and during construction

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	<p>that the fossils are recovered, prepared, identified, catalogued, and analyzed according to current professional standards under the direction of a qualified paleontologist. All recovered fossils shall be curated at an accredited and permanent scientific institution according to Society of Vertebrate Paleontology standard guidelines; typically, the Natural History Museum of Los Angeles County and University of California, Berkeley accept paleontological collections at no cost to the donor. Work may commence upon completion of treatment, as approved by the District.</p>		
Hydrology/Water Quality			
	<p>Mitigation Measure HYDRO-1: Monitor Groundwater Quality.</p> <p>To minimize potential effects of project construction and operation on groundwater quality, the District will ensure that the following measures are implemented:</p> <ul style="list-style-type: none"> • The District will use an existing groundwater extraction well on or near the Project site to monitor groundwater levels and quality during and after recharge operations. The purpose of monitoring is to verify groundwater recharge is not detrimentally affecting groundwater quality in the Project area. • During construction of the recharge basins, up to 5 feet of fine ground soils (silts and clays) will be excavated from each recharge basin to expose the underlying fine to medium grained sand in the base of each recharge basin. During soil excavation and removal, the contractor and inspecting engineer will monitor for evidence of soil 	RRID and construction contractor	During and after construction; during and after recharge operations

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	<p>contamination (color, odor, buried tanks, pipelines). If contaminated soils are encountered during excavation, these soils will be analyzed to identify the type and extent (vertically and horizontally) of contamination present. Contaminated soils will either be treated on site or disposed of at a hazardous waste landfill.</p> <ul style="list-style-type: none"> • If contaminated soils are encountered during construction, additional groundwater monitoring wells may be installed to verify that groundwater has not been impacted. As an added measure of protection, the District will cease the construction of the pond in and adjacent to contaminated soils. During the operational phase of the proposed project, the District will conduct annual monitoring to verify that groundwater quality is not being adversely impacted by the recharge operation. 		