

MITIGATION MONITORING AND REPORTING PROGRAM SUMMARY TABLE

The following mitigation monitoring and reporting program (MMRP) summary table includes the mitigation measures identified in the City of Modesto’s (City’s) Del Rio Tank and Wells Project Draft Environmental Impact Report (DEIR) and the Final Program Environmental Impact Report (Program EIR) for the Water System Engineer’s Report (City of Modesto 2010). Mitigation measures from the Program EIR are designated with “P-.” For each mitigation measure, this table identifies monitoring and reporting actions that shall be carried out and the monitoring schedule. This table also includes a column where responsible parties can check off monitoring and reporting actions as they are completed.

As lead agency, the City will be responsible for ensuring that mitigation measures identified in this EIR are fully implemented. However, some mitigation measures would be implemented by the contractor(s) on behalf of the City. Contract documents for the proposed project will identify the obligations of the contractor, including relevant mitigation measures. The City will require that the contractor provide the City with documentation that it has adequately implemented its contractual obligations, including applicable mitigation measures.

Thus, in the descriptions of the mitigation measures provided in the table which follows, while the City may be the only party referenced in implementing a mitigation measure (i.e., where the measure states “the District shall”), this is intended to be inclusive of the contractor’s role in implementing certain mitigation measures during construction or as part of design.

ACRONYMS AND ABBREVIATIONS USED IN APPENDIX H

ASTM	American Society for Testing Materials
CDFG	California Department of Fish and Game
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
City	City of Modesto
CRHR	California Register of Historical Resources
dBA	A-weighted decibels
DEIR	draft environmental impact report
EIR	environmental impact report
EPA	Environmental Protection Agency
MLD	Most Likely Descendant
MMRP	mitigation monitoring and reporting program
NAHC	Native American Heritage Commission
PRC	Public Resources Code
TCR	tribal cultural resource
USFWS	U.S. Fish and Wildlife Service

Mitigation Measure		Monitoring and Reporting Action	Monitoring Schedule	Completion Date and Initials
Aesthetics				
AES-1	<p>Locate Staging Areas Away from Public Areas.</p> <p>Construction staging areas for equipment, personal vehicle parking, and material storage shall be sited as far as possible from residences, major roadways, and public areas. The City contract specifications shall require that staging areas be identified in the documents prepared by construction contractors and subject to approval by the City. The City shall not approve staging areas that are not sited as described above.</p>	<ul style="list-style-type: none"> ▪ Confirm that construction staging area requirements are incorporated into the contract specifications ▪ Designate location of staging areas in contract specifications 	<ul style="list-style-type: none"> ▪ During preparation of contract specifications ▪ Before construction begins 	
AES-2	<p>Screen Staging and Construction Areas.</p> <p>The construction contract shall specify that staging areas be located where opportunities for screening with existing topography and vegetation will be maximized. Security fencing placed around staging and construction areas shall include slats or other screening sufficient to hide the area from the passing public. Screens used for this purpose shall be of an earth tone or other appropriate neutral color.</p>	<ul style="list-style-type: none"> ▪ Confirm that staging area screening requirements are incorporated into the construction specifications ▪ Confirm that screening requirements are implemented properly. 	<ul style="list-style-type: none"> ▪ Before construction begins ▪ During construction 	
Air Quality				
None				
Biological Resources				
BIO-1	<p>Avoid and Protect Burrowing Owls at Site A.</p> <p>Because some burrows that could be used by Burrowing Owls were noted during field surveys at Site A, and in conformance with federal and state regulations regarding</p>	<ul style="list-style-type: none"> ▪ Retain qualified biologist to conduct survey. ▪ Confirm that preconstruction survey is 	<ul style="list-style-type: none"> ▪ Before construction ▪ Before construction 	

	Mitigation Measure	Monitoring and Reporting Action	Monitoring Schedule	Completion Date and Initials
	<p>the protection of raptors, the City shall hire a qualified biologist to conduct a preconstruction survey(s) for Burrowing Owls within a 250-foot buffer around the project site, in conformance with accordance with protocols established in the Staff Report on Burrowing Owl Mitigation (CDFG 2012 or current version), and prior to the start of construction. If no Burrowing Owls are located during these surveys, no additional action is warranted. However, if breeding or resident owls are located on or within 250 feet of Site A, the following measures shall be implemented.</p> <ul style="list-style-type: none"> ▪ No Burrowing Owls will be evicted from burrows during the nesting season (February 1 through August 31). Eviction outside the nesting season may be permitted following evaluation of eviction plans and receipt of formal written approval from CDFW authorizing the eviction. ▪ A 250-foot buffer, within which no new activity is permissible, shall be maintained between project activities and nesting Burrowing Owls. This protected area will remain in effect until August 31 or, at CDFW’s discretion (based upon monitoring evidence), until the young owls are foraging independently. 	<p>conducted in accordance with this mitigation measure.</p> <ul style="list-style-type: none"> ▪ If Burrowing Owls are found within 250 feet of Site A, establish buffer and avoid new activity in the area. 	<ul style="list-style-type: none"> ▪ During construction as necessary 	
<p>BIO-2</p>	<p>Compensate for Loss of Burrowing Owl Habitat at Site A.</p> <p>If a preconstruction survey finds that Burrowing Owls occupy Site A, and avoiding construction in occupied areas is not feasible, then the City shall implement habitat compensation on off-site mitigation lands, or shall purchase mitigation bank credits from a mitigation bank approved by CDFW. If mitigation credits are not purchased, habitat management</p>	<ul style="list-style-type: none"> ▪ Consult with CDFW and confirm whether purchasing mitigation bank credits or off-site mitigation option shall be pursued. ▪ If mitigation bank credits are not available, establish an 	<ul style="list-style-type: none"> ▪ Before construction ▪ Before or during construction, as necessary 	

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	<p>lands comprising existing Burrowing Owl foraging and breeding habitat will be acquired and preserved. An area of 6.5 acres (the amount of land found to be necessary to sustain a pair or an individual owl) will be secured for each pair of owls or for an individual, in the case of an odd number of birds. Relocation of owls shall only be implemented during the non-breeding season. As part of an agreement with CDFW, the City shall provide CDFW with security for the performance of its mitigation duties in the form of funds that will:</p> <ul style="list-style-type: none"> ▪ allow for the acquisition and preservation of 6.5 acres of habitat management lands for each pair of owls or unpaired resident single owl; ▪ provide initial protection and enhancement activities on the habitat management lands, potentially including such measures as fencing, trash cleanup, artificial burrow creation, grazing or mowing, and any habitat restoration deemed necessary by CDFW; ▪ establish an endowment for the long-term management of the habitat management lands; and ▪ reimburse CDFW for reasonable expenses incurred as a result of the approval and implementation of this agreement. 	<p>agreement with CDFW regarding the appropriate amount of funds that should be set aside for the project’s mitigation.</p> <ul style="list-style-type: none"> ▪ Submit appropriate funds to CDFW consistent with the agreement made with CDFW 	<ul style="list-style-type: none"> ▪ Before or during construction, as necessary 	
BIO-3				

	Mitigation Measure	Monitoring and Reporting Action	Monitoring Schedule	Completion Date and Initials
	<p>Compensate for Loss of Swainson’s Hawk Foraging Habitat.</p> <p>To mitigate for the loss of potential Swainson’s Hawk foraging habitat, the City shall provide off-site habitat management lands, as described in the CDFW protocol for the mitigation of impacts on Swainson’s hawks in the Central Valley (CDFG 1994), or by purchasing credits at a CDFW-approved Swainson’s Hawk foraging habitat mitigation bank that covers the Proposed Project area, such as the Dutchman Creek Conservation Bank.</p> <p>The City shall determine the final acreage of off-site management lands or mitigation bank credits to be provided based on the distance between the project area and the nearest active nest site, as stated in the CDFW protocol (CDFG 1994). Mitigation credits would follow the same ratio guidelines as off-site management lands. Prior to the grading of any site with potential foraging habitat, the City shall hire a qualified biologist to conduct protocol-level surveys to determine the location of the nearest active nest. Based on these surveys, the City shall compensate for losses in compliance with the protocol for the mitigation of impacts on Swainson’s hawks in the Central Valley (CDFG 1994), as follows:</p> <ul style="list-style-type: none"> ▪ Projects within 1 mile of an active nest tree shall provide: <ul style="list-style-type: none"> – 1 acre of habitat management land for each acre of development authorized (1:1 ratio), at least 10% of which shall be met by fee title acquisition or a conservation easement allowing for the active management of the habitat, with the remaining 90% protected by a conservation easement acceptable to 	<ul style="list-style-type: none"> ▪ Consult with CDFW and confirm whether purchasing mitigation bank credits or off-site mitigation option shall be pursued. ▪ If mitigation credits are available and acceptable to CDFW, purchase the appropriate number of credits from the mitigation bank in accordance with the CDFW protocol. ▪ If off-site management lands are pursued, hire a qualified biologist to conduct protocol-level surveys for Swainson’s hawk nests in the project vicinity. ▪ If off-site management lands are pursued, mitigate for those losses consistent with the ratios stated in the mitigation measure and through consultation with CDFW. Protect habitat management lands by acquiring a fee title or establishing a conservation easement. 	<ul style="list-style-type: none"> ▪ Before construction ▪ Before or during construction, as necessary ▪ Before or during construction, as necessary ▪ Before or during construction, as necessary 	

	Mitigation Measure	Monitoring and Reporting Action	Monitoring Schedule	Completion Date and Initials
	<p>CDFW on agricultural lands or other suitable habitats that provide foraging habitat for Swainson’s Hawk; or</p> <ul style="list-style-type: none"> - 0.5 acre of habitat management land for each acre of development authorized (0.5:1 ratio), all of which shall be met by fee title acquisition or a conservation easement acceptable to CDFW that allows for the active management of the habitat for prey production on the habitat management lands. ▪ Projects within 5 miles of an active nest tree but greater than 1 mile from the nest tree shall provide 0.75 acre of habitat management land for each acre of urban development authorized (0.75:1 ratio). All habitat management lands protected under this requirement may be protected through fee title acquisition or conservation easement on agricultural lands or other suitable habitats that provide foraging habitat for Swainson’s Hawks. ▪ Projects within 10 miles of an active nest tree but greater than 5 miles from an active nest tree shall provide 0.5 acre of habitat management land for each acre of urban development authorized (0.5:1 ratio). All habitat management lands protected under this requirement may be protected through fee title acquisition or conservation easement acceptable to CDFW on agricultural lands or other suitable habitats that provide foraging habitat for Swainson’s Hawks. 			

Mitigation Measure		Monitoring and Reporting Action	Monitoring Schedule	Completion Date and Initials
	Management Authorization holders/project sponsors shall provide for the long-term management of the habitat management lands by funding a management endowment (the interest on which shall be used for managing the habitat management lands). If mitigation credits are purchased, long term management would be the responsibility of the mitigation bank.			
BIO-4	<p>Conduct Preconstruction Surveys for Swainson’s Hawk Nests.</p> <p>To ensure that nesting Swainson’s Hawks will not be disturbed by construction activities, the City will hire a qualified ornithologist to conduct preconstruction surveys of the Proposed Project sites and adjacent areas within 1 mile of Sites A and B. No fewer than three surveys will be completed in at least each of the two survey periods immediately prior to project initiation, according to this schedule, based on Recommended Timing and Methodology for Swainson’s Hawk Nesting Surveys in California’s Central Valley (Swainson’s Hawk Technical Advisory Committee 2000):</p> <ul style="list-style-type: none"> ▪ Survey Period I occurs from January 1 to March 20; ▪ Period II from March 20 to April 5; ▪ Period III from April 5 to April 20; ▪ Period IV from April 21 to June 10 (surveys are not recommended during this period because identification is difficult, as the adults tend to remain within the nest for longer periods of time); and 	<ul style="list-style-type: none"> ▪ Retain a qualified ornithologist to conduct preconstruction surveys. ▪ Complete preconstruction surveys within the time period outlined in the mitigation measure. ▪ In the event that nest is found, halt construction and contact CDFW to confirm how to proceed. 	<ul style="list-style-type: none"> ▪ Before construction ▪ Before construction ▪ Before construction 	

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	<ul style="list-style-type: none"> Period V from June 10 to July 30. <p>If a nest site is found, no construction work shall commence until after the City engages in consultation with CDFW and CDFW-approved measures are implemented. As a performance standard, the measures implemented shall ensure that project initiation will not result in nest disturbance.</p>			
BIO-5	<p>Conduct Preconstruction Surveys for Nesting Birds.</p> <p>The City shall require that construction will be avoided during the nesting season (generally between February 1 and August 31), where practical. If construction activities cannot be avoided during the nesting season, a qualified biologist will conduct a preconstruction survey within 500 feet of the construction area to determine whether active nests are present on the site. The survey will be conducted no more than 30 days prior to construction. If the biologist determines that the area surveyed does not contain any active nests, then construction activities can commence without any further mitigation. If active nests are found, CDFW and USFWS will be notified and Mitigation Measure BIO-6 will be implemented.</p>	<ul style="list-style-type: none"> Retain a qualified biologist to conduct preconstruction surveys. Complete surveys at least 30 days before construction. If active nests are found during the surveys, contact CDFW and USFWS 	<ul style="list-style-type: none"> Before construction Before construction Before construction 	
BIO-6	<p>Avoid and Minimize Impacts on Nesting Raptors and Other Migratory Birds.</p> <p>To avoid disturbing any active migratory bird nests, the City shall require that construction activities will be conducted during the non-breeding season for these species (generally between September 1 and January 31). If active nests are present on or adjacent to either of the Proposed Project</p>	<ul style="list-style-type: none"> If active nests are found during implementation of Mitigation Measure BIO-5, limit construction activities to the general non-breeding season (September 1 to January 31). 	<ul style="list-style-type: none"> During construction During construction During construction 	

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	<p>sites, CDFW and USFWS will be notified. If active migratory bird nests are present and construction cannot be avoided during the breeding season, construction will not occur within 500 feet of an active nest until the young have fledged, as determined by a qualified biologist, or until the project applicant receives written authorization from CDFW and USFWS to proceed.</p>	<ul style="list-style-type: none"> ▪ Contact CDFW and USFWS if active nests are present on or near construction work areas. ▪ If active nests are present and cannot be avoided during the breeding season (February 1 to August 31), establish 500-foot buffer around active nest. 		
BIO-7	<p>Protect Bat Colonies.</p> <p>The following measures shall be implemented to avoid and minimize impacts on bats:</p> <ul style="list-style-type: none"> ▪ Prior to removal of structures, the City shall hire a qualified bat biologist familiar with bat biology and ecology to assess structures to be removed for potential, active bat habitat. If the biologist determines that bats are not actively occupying the structures based on professional opinion following appropriate survey protocols, then the structures may be removed. ▪ For structures identified by the qualified biologist to be actively occupied by bats, removal of the structures shall not occur between April 15 and August 31 to avoid the bat maternity season, ▪ Demolition of structures shall be preceded by either humane eviction, phased dismantling, and/or deterrent methods to prevent direct mortality. 	<ul style="list-style-type: none"> ▪ Retain a qualified bat biologist to conduct surveys prior to removal of structures at Site A. ▪ Bat biologist shall conduct surveys of structures. ▪ If structures are occupied, ensure that removal of structures occur between September 1 and April 14 (outside of bat maternity season). ▪ Ensure demolition activities take place consistent with Mitigation Measure BIO-7. 	<ul style="list-style-type: none"> ▪ Before construction ▪ Prior to removal of structures ▪ During construction ▪ During construction ▪ During construction 	

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Cultural Resources				
CR-1	<p>Suspend Construction Immediately if Cultural Resources Are Discovered, Evaluate All Identified Cultural Resources for CRHR Eligibility, and Implement Appropriate Mitigation Measures for Eligible Resources.</p> <p>Not all cultural resources are visible on the ground surface. As a result, before initiation of ground-disturbing activities, the City or its designee shall arrange for construction crews to receive training about the kinds of archaeological materials that could be present at the Proposed Project site and the protocols to be followed should any such materials be uncovered during construction. Training shall be conducted by an archaeologist who meets the U.S. Secretary of the Interior’s professional standards. Training shall be required during each phase of construction to educate new construction personnel.</p> <p>If any cultural resources, including structural features, unusual amounts of bone or shell, flaked or ground stone artifacts, historic-era artifacts, human remains, or architectural remains, are encountered during Proposed Project construction activities, work shall be suspended immediately at the location of the find and within a radius of at least 50 feet and the City will be contacted.</p> <p>All cultural resources uncovered during construction within the Proposed Project site shall be evaluated for eligibility for inclusion in CRHR. Resource evaluations shall be conducted by individuals who meet the U.S. Secretary of the Interior’s professional standards in archaeology, history, or architectural history, as appropriate. If any of the resources</p>	<ul style="list-style-type: none"> ▪ Retain qualified archaeologist or City staff person to conduct worker training. ▪ Halt construction activities in the event any cultural resources are encountered. ▪ If cultural resources are uncovered, retain a qualified individual who meets the U.S. Secretary of the Interior’s standards to conduct resource evaluations. ▪ If uncovered resources meet eligibility criteria, implement mitigation measures consistent with Guidelines Section 15126.4(b). ▪ If TCR or any other resources eligible for listing in the CRHR are encountered, implement additional measures in accordance with Mitigation Measure CR-1. 	<ul style="list-style-type: none"> ▪ Prior to construction ▪ During construction ▪ During construction ▪ During construction ▪ During construction 	

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	<p>meet the eligibility criteria identified in PRC Section 5024.1 or CEQA Guidelines Section 21083.2(g), mitigation measures will be developed and implemented in accordance with CEQA Guidelines Section 15126.4(b) before construction resumes.</p> <p>For a TCR or any resources eligible for listing in the CRHR that would be significantly adversely affected by the Proposed Project construction, additional mitigation measures shall be implemented. Mitigation measures for archaeological resources may include (but are not limited to) avoidance; incorporation of sites within parks, greenspace, or other open space; capping the site; deeding the site into a permanent conservation easement; or data recovery excavation. Mitigation measures for archaeological resources shall be developed in consultation with responsible agencies and, as appropriate, interested parties such as Native American tribes. Native American consultation is required if an archaeological site is determined to be a TCR. Implementation of the approved mitigation is required before resuming any construction activities with the potential to affect identified eligible resources at the site.</p>			
CR-2	<p>Suspend Construction Immediately if Paleontological Resources Are Discovered, Evaluate the Significance of the Resources, and Implement Appropriate Mitigation Measures as Necessary.</p> <p>Paleontological resources are not necessarily visible on the ground surface. As a result, before initiation of ground-disturbing activities, construction crews shall receive training about the kinds of paleontological materials that could be present at the Proposed Project site and the protocols to be followed should such materials be uncovered during</p>	<ul style="list-style-type: none"> ▪ Retain a qualified paleontologist to conduct worker training. ▪ In the event a paleontological item is discovered, halt construction activities within 50 feet of discovery site and notify the City. 	<ul style="list-style-type: none"> ▪ Prior to construction ▪ During construction ▪ During construction 	

Mitigation Measure		Monitoring and Reporting Action	Monitoring Schedule	Completion Date and Initials
	<p>construction. Training shall be conducted by a professional paleontologist. Training shall be required during each phase of construction to educate new construction personnel.</p> <p>If any items of paleontological interest are discovered during construction, work shall be suspended immediately within 50 feet of the discovery site, or to the extent needed to protect the site, and the City shall be notified.</p> <p>Any discovery of paleontological resources during construction shall be evaluated by the qualified paleontologist. If it is determined that the Proposed Project could damage a unique paleontological resource, mitigation shall be implemented in accordance with PRC Section 21083.2 and CEQA Guidelines Section 15126.4. If avoidance is not feasible, the paleontologist shall develop a treatment plan in consultation with the City. Work shall not be resumed until authorization is received from the City and any recommendations received from the qualified paleontologist are implemented.</p>	<ul style="list-style-type: none"> ▪ Ensure that qualified paleontologist evaluates the discovery and, in the event the project could damage the resource, implement mitigation in accordance with Mitigation Measure CR-2 and consult with the City as necessary. 		
CR-3	<p>Halt Construction Immediately if Human Remains Are Discovered and Implement Applicable Provisions of the California Health and Safety Code.</p> <p>If human remains are discovered during construction activities, the requirements of Section 7050.5 of the California Health and Safety Code shall be followed. Potentially damaging excavation shall halt on the Proposed Project site within a minimum radius of 100 feet of the remains and the County Coroner shall be notified. The Coroner is required to examine all discoveries of human remains within 48 hours of receiving notice of a discovery on</p>	<ul style="list-style-type: none"> ▪ Confirm that measure is included in project plans and specifications. ▪ In the event that human remains are encountered, halt work and contact the Stanislaus County Coroner. ▪ Confirm that any discoveries of human remains are 	<ul style="list-style-type: none"> ▪ During preparation of plans and specifications ▪ During construction ▪ During construction 	

Mitigation Measure		Monitoring and Reporting Action	Monitoring Schedule	Completion Date and Initials
	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, he or she must contact the NAHC by phone within 24 hours of making that determination (Health and Safety Code Section 7050[c]). In accordance with the provisions of PRC Section 5097.98, the NAHC shall identify a Most Likely Descendent (MLD). The MLD designated by the NAHC shall have at least 48 hours to inspect the site and propose treatment and disposition of the remains and any associated grave goods. The City or its designee shall work with the MLD to ensure that the remains are removed to a protected location and treated with dignity and respect.	evaluated and addressed properly.		
CR-4	<p>Prepare and Implement Treatment Plans for any TCRs Identified in the Proposed Project Study Area.</p> <p>If TCRs are identified in the Proposed Project study area, the City shall consult and work with tribes with a traditional and cultural affiliation to the resource to develop feasible alternatives that will avoid impacts or develop and implement treatment plans that will substantially lessen the impacts on identified TCRs, in accordance with PRC Sections 21083(b)(2) or 21084.3.</p>	<ul style="list-style-type: none"> ▪ Confirm that measure is included in project plans and specifications. ▪ In the event that TCRs are identified, consult with tribes with a traditional and cultural affiliation to the resource and implement treatment plans if necessary. 	<ul style="list-style-type: none"> ▪ During preparation of plans and specifications ▪ During construction 	
<i>Geology, Soils, and Seismicity</i>				
P-GEO-1	<p>Conduct project-specific geotechnical investigation prior to construction.</p> <p>During project design, project-specific geotechnical investigations and reports will be prepared by registered engineers to detect site conditions that could result in</p>	<ul style="list-style-type: none"> ▪ Retain a registered engineer to prepare a geotechnical 	<ul style="list-style-type: none"> ▪ During the initial design phase ▪ During preparation of 	

Mitigation Measure		Monitoring and Reporting Action	Monitoring Schedule	Completion Date and Initials
	liquefaction, construction on expansive soils, or other potential hazards and to identify appropriate design requirements that would prevent damage to structures. Site-specific geological data and recommendations by a registered engineer will be incorporated into project design, thereby reducing any impacts due to liquefaction.	investigation and report for the project. <ul style="list-style-type: none"> ▪ Incorporate site-specific data and recommendations from the report into project design to minimize impacts related to liquefaction. 	plans and specifications	
Global Climate Change				
None				
Groundwater				
None				
Hazards and Hazardous Materials				
P-HAZ-1	Prepare a risk assessment prior to construction activity. Prior to the commencement of construction activities, the City or its contractor will prepare a risk assessment and establish procedures to address the identification, excavation, handling, and disposal of hazardous materials in accordance with ASTM Standard 1527-05, "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process" and the EPA "All Appropriate Inquiries" standards and practices (40 CFR 312). An environmental database search of regulatory-listed hazardous materials sites contained in local, regional, state, and federal databases for the program site and within a 0.5-mile radius of the site will be performed by a qualified professional as part of this assessment. If contaminated soil	<ul style="list-style-type: none"> ▪ Retain a qualified contractor to conduct a Phase I environmental site assessment. ▪ Incorporate recommendations from the Phase I report in the project plans and specifications. ▪ Ensure that the contractor implements risk assessment recommendations and ensure corrective action if necessary. 	<ul style="list-style-type: none"> ▪ Prior to construction ▪ During preparation of plans and specifications ▪ During construction ▪ During construction 	

Mitigation Measure		Monitoring and Reporting Action	Monitoring Schedule	Completion Date and Initials
	<p>or groundwater is encountered, the City will notify the appropriate local environmental management agencies and local fire departments. The City will ensure that any identified environmental site conditions that may represent a risk to public health and safety will be remediated in accordance with federal, state, and local environmental laws and regulations. All recommendations in the risk assessment will be implemented by the City and all its representatives, including contractors and earthwork construction workers, such that people are not exposed to adverse conditions on the program site as a result of discovering existing sources of contamination.</p>	<ul style="list-style-type: none"> ▪ Notify appropriate local environmental agencies fire departments in the event that contaminated soil or groundwater is encountered and remediate in accordance with federal, state and local laws and regulations. 		
P-HAZ-2	<p>Control contamination resulting from previously unidentified hazardous waste materials.</p> <p>Prior to the onset of construction, all construction workers will be trained in the identification of potentially contaminated soil and water, including the characteristics of potential contamination, such as discolored soil, oils or sheens on water, and unusual odors. In the event that hazardous materials are encountered during construction, all construction activities in the area of the discovery will stop, and the City or its contractors will conduct hazardous materials investigations to identify the nature and extent of contamination and evaluate potential impacts on program construction. If necessary, the City or its contractors will implement remediation measures consistent with all applicable local, state, and federal codes and regulations. Construction will not resume until remediation is complete. If waste disposal is necessary, the City will ensure that all hazardous materials removed during construction are</p>	<ul style="list-style-type: none"> ▪ Confirm that measure is included in project plans and specifications. ▪ Conduct worker training. ▪ Halt construction in the event that hazardous materials are encountered. ▪ As necessary, implement remediation measures and transport hazardous materials to an appropriately-licensed and permitted facility. 	<ul style="list-style-type: none"> ▪ During preparation of plans and specifications ▪ Prior to construction ▪ During construction ▪ During construction 	

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	handled and disposed of by a licensed waste-disposal contractor and are transported by a licensed hauler to an appropriately-licensed and permitted disposal or recycling facility, in accordance with local, state, and federal requirements.			
Land Use and Planning				
None				
Noise and Vibration				
NOISE-1	<p>Employ Noise-reducing Construction Practices.</p> <p>The following measures shall be implemented by the City or its contractor to reduce adverse effects from construction noise:</p> <ul style="list-style-type: none"> At least two weeks prior to the start of construction, provide written notification to the potentially affected property owners and residents within 500 feet of the project site, identifying the type, duration, and frequency of construction activities to residences directly exposed to the project noise. Notification of heavy construction activities shall include anticipated dates and hours during which construction activities are anticipated to occur. Notification materials shall also identify a mechanism for residents to register complaints with the City through contact information, including a daytime telephone number, for the project representative to be contacted in the event that construction noise levels are deemed excessive, overly intrusive or construction occurs outside the permitted hours. Recommendations to assist noise-sensitive land uses in reducing interior noise levels (e.g., 	<ul style="list-style-type: none"> Confirm that measure is included in project plans and specifications. Notify property owners and residents within 500 feet of project site about construction activities and schedule. Designate a noise disturbance coordinator and ensure that this person’s contact information is posted around the project site. Comply with noise minimization measures 	<ul style="list-style-type: none"> During preparation of plans and specifications At least 2 weeks prior to construction During construction During construction During construction 	

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	<p>closing windows and doors) shall be included in the notification.</p> <ul style="list-style-type: none"> ▪ Designate a disturbance coordinator and conspicuously post this person's number around the project sites, in adjacent public spaces, and in construction notifications. The disturbance coordinator shall be responsible for responding to any complaints about construction activities. The disturbance coordinator shall receive all public complaints about construction disturbances and be responsible for determining the cause of the complaint and implementation of feasible measures to be taken to alleviate the problem. ▪ Locate stationary or fixed construction equipment (e.g., compressors and generators), construction staging and stockpiling areas, and construction vehicle routes as far as feasible from noise-sensitive receptors. ▪ Prohibit the start-up of machines or equipment before 7 a.m. and after 7 p.m. Monday through Saturday and before 9 a.m. and after 5 p.m. on Sunday. ▪ Prohibit use of materials and equipment deliveries before 7 a.m. and after 7 p.m., Monday through Saturday and before 9 a.m. and after 5 p.m. on Sunday. ▪ Restrict the use of bells, whistles, alarms, and horns to safety-warning purposes. ▪ Equip all construction equipment with noise-reduction devices such as mufflers to minimize construction noise and operate all internal combustion engines with exhaust and intake silencers. 	<p>outlined in Mitigation Measure NOISE-1.</p> <ul style="list-style-type: none"> ▪ Ensure corrective action as necessary. 		

Mitigation Measure		Monitoring and Reporting Action	Monitoring Schedule	Completion Date and Initials
	<ul style="list-style-type: none"> ▪ Use noise-reducing enclosures around stationary noise generating equipment. ▪ To the extent feasible, the simultaneous operation of multiple construction equipment shall be limited. ▪ Install temporary barrier between noise sources and noise sensitive receptors, or the use of intervening structures (i.e.; on-site construction trailer, stockpiles). 			
NOISE-2	<p>Employ Noise-reducing Methods during Operations at Site B.</p> <p>The City shall implement noise-reducing methods so that noise from well operations at Site B, located at the corner of McHenry Avenue and Stewart Road, does not exceed County noise-level standards at adjacent residences. Measures to be implemented shall include the following:</p> <p>Generator</p> <ol style="list-style-type: none"> 1. Project specifications shall include generator sound level limits of 73 dBA at 23 feet, similar to those at the City’s Well 62 facility. 2. Noise control specifications for the generator set shall include a sound-attenuated enclosure for the pump and a sound wall within the facility wall. Specifications for the pump enclosure and sound wall are prescribed in item 5 below. 3. Routine testing of the generator shall be performed during daytime hours, between 10 a.m. and 5 p.m., 	<ul style="list-style-type: none"> ▪ Incorporate noise-reducing measures into the project’s generator and pump enclosure design requirements. ▪ Retain a qualified acoustical consultant to assist with preparing the project’s generator and pump enclosure and sound wall specifications. ▪ Ensure that well pumps and generator are designed consistent with Mitigation Measure NOISE-2. ▪ Confirm that noise-reducing methods are included in project plans and specifications. 	<ul style="list-style-type: none"> ▪ During the initial design phase ▪ During the initial design phase. ▪ During the design phase. ▪ During preparation of plans and specifications 	

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	<p>when background sound levels are highest, to minimize potential noise impacts.</p> <p>4. Obtain the services of a qualified acoustical consultant to conduct project-related operational noise measurements at sensitive receptor locations adjacent to the Proposed Project site to ensure that noise-reducing measures comply with applicable codes. If noise measurements do not comply with applicable codes, additional noise reduction measures should be designed and incorporated.</p> <p>With these measures, no additional sound reduction would be required to reduce sound levels due to the generator set.</p> <p>Pump Enclosure and Sound Wall</p> <p>5. The pump enclosure shall be designed to the following specifications to ensure operational sound levels are reduced below County standards:</p> <p>(a) Install a modular sound wall with an optional removable roof adjacent to the pump. The sound-absorptive modular barrier system shall be installed along the west edge of the pump base to a height of at least 10 feet above grade. The barrier system will wrap around the north and south sides of the pump to create a three-walled system with integrated sound absorption. In general, acoustical barriers perform best when close to the noise source. Acceptable products include the following or an approved equivalent: Kinetics Noiseblock Barrier</p>			

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	<p>Panel System, Noise Barriers LLC QuietLine Barrier Walls, Sound Fighter Systems LSE.</p> <p>(b) Include an insulated sheet metal shroud around the pump motor and shaft. Construct the sheet metal shroud to block the line of sight to the motor ventilation openings. Construction materials shall include exterior-grade sheet metal used for heating, ventilation, and air conditioning (HVAC) ducts and acoustical duct liner.</p> <p>(c) If the above measures cannot be employed for the pump, one of the following measures will be implemented to meet the County’s nighttime noise threshold of 45 dBA:</p> <ul style="list-style-type: none"> i. Install a submersible pump that would place the motor under water and virtually eliminate the sound source. ii. Increase the height of the equipment yard sound wall above 12 feet. Based on the noise analysis, increasing the equipment yard wall height to 13 feet would result in an additional 2 dBA of attenuation and a predicted sound level of 45 dBA. A 14-foot-tall wall could reduce sound levels by an additional 1 dBA. iii. Construct a barrier adjacent to the motor with a removable roof barrier directly over the motor. This secondary barrier directly adjacent to the pump motor on the west side would effectively 			

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	<p>reduce sound levels below the nighttime noise threshold. The detachable roof would still provide access to the motor for servicing and removal.</p> <p>The barrier adjacent to the motor shall be designed to the following specifications to ensure operational sound levels would be reduced below County standards:</p> <ul style="list-style-type: none"> ▪ The barrier shall be constructed around the equipment within the wall surrounding the facility. ▪ The barrier shall weigh a minimum of 4 pounds per square foot. Painted and sealed concrete block easily meets this weight requirement. ▪ The barrier shall be continuous along its length and width with no gaps in the construction, including at the ground. The equipment yard pad shall be sloped such that weeping holes are only needed on the north and east sides of the facility. <p>iv. Construct an insulated sheet metal shroud around the motor and shaft. This metal shroud would accommodate air circulation requirements for the motor, but would divert sound energy away from the motor openings and base near the shaft. Sound energy would</p>			

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	be attenuated by sound-absorbing material within the metal shroud.			