

Final

Initial Study and Mitigated Negative Declaration

State Clearinghouse No. 2023080439

**Water Reclamation Plant No. 7 (WRP 7) Phase 1
Non-Potable Water Improvements Project**

City of Indio, California

Lead Agency:



Coachella Valley Water District
75-515 Hovley Lane East
Palm Desert, California 92211

Prepared with the assistance of:



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September 2023

DRAFT MITIGATED NEGATIVE DECLARATION

Lead Agency: Coachella Valley Water District (CVWD)

Project Proponent: Coachella Valley Water District (CVWD)

Project Location: The Project Area includes the northwest portion of CVWD's Water Reclamation Plant (WRP) 7, located south of Avenue 38 along Madison Street in the City of Indio in Riverside County, California. The Mile Post (MP) 113.2 pump station is located on the southwest corner of the Madison Street and Avenue 40 intersection. The proposed pipeline would be located in the existing roadway of Jefferson Street and on private property north of Young Way. The Project Area includes seven parcels: APNs 691-100-029 and 691-100-030, which are located south of Avenue 38, north of Lindy Lane, west of Madison Street, and east of Burr Street; APN 691-180-006, which is south of Avenue 40 and west of Madison Street, adjacent to the canal; APN 691-050-021, which is at the western end of Young's Way; and APNs 691-060-010, 691-050-010, and 691-050-012, the Young's Farmland property (Figures 1 and 2).

Project Description: CVWD proposes improvements to the existing tertiary treatment plant processes and an existing canal pump station at WRP 7. The Project would reduce the usage of non-potable irrigation water (NPW) from the Coachella Canal by generating additional recycled water (RW), which would benefit existing NPW/RW users in the WRP 7 service area. The WRP 7 Tertiary Treatment Improvements and MP 113.2 Pump Station Rehabilitation Project includes the following upgrades:

- Retrofit the existing dual media filter basins with cloth disk filters to improve tertiary treatment to and match the rated capacity of the plant within the same footprint.
- Construct a low-pressure ultraviolet (UV) system with 12 lamps and 2 channels (100 ml/cm²) to match the rated capacity of the plant in accordance with Title 22 regulations, in an enclosed 44-foot by 61-foot building and with an electrical building to substitute use of chlorine gas.
- Abandon the existing chlorine gas system, and maintain the existing chlorine contact basin for potential future use by operations for effluent/backwash holding.

- Upgrade of the existing systems associated with the tertiary process includes the in-kind replacement of the following:
 - Secondary effluent flocculation system
 - Tertiary process chemical feed systems, including sodium hypochlorite storage in fiber-reinforced plastic-coated steel tanks. Includes replacement of existing feed pumps for additional capacity due to increased tertiary flows and feed piping.
 - In-plant secondary effluent, and NPW delivery pumping systems capacity increase for a 5.5 MGD system (2.5 MGD existing).
 - Tertiary Process electrical motor control centers (MCCs). A new electrical control building would house existing and new components.

CVWD is also replacing the aged infrastructure at canal water delivery pump station MP 113.2 as part of this Proposed Project. To maintain the current capacity of the pump station, the two existing pumps and MCC's are being replaced with more efficient pumps and drives requiring less horsepower. The motors would be approximately 10 percent more efficient, and horsepower (HP) would be reduced from 150-HP to 100-HP per pump. A third pump is being added to allow operations to perform routine maintenance while maintaining facility capacity in a typical two-duty and one-standby configuration. All improvements to the pump station are within the existing MP 113.2 site located on the southwest corner of the Madison Street and Avenue 40 intersection.

The Proposed Project would also install approximately 2,500 linear feet of NPW pipeline to connect Young's Farmland to the existing NPW pipeline on Avenue 38. Young's Farmland currently uses groundwater for irrigation. The Proposed Project would convert the primary irrigation source from groundwater to recycled water. The Young's Farmland NPW pipeline would be installed within the right-of-way of Jefferson Street and on Young's Farmland property (APN 691-060-010, 691-050-010, and 691-050-012).

Public Review Period: August 21, 2023 to September 19, 2023

Mitigation Measures Incorporated into the Project to Avoid Significant Effects:

Project Specific Mitigation Measures

Biological Resources

BIO-PS-1: Burrowing Owl Presence/Absence. If, during the pre-construction Burrowing Owl Surveys, burrows onsite are determined to be unoccupied, construction may proceed without the preparation of a Burrowing Owl Plan. If the surveys determine the presence of burrowing owls, a Burrowing Owl Plan consistent with the guidance in the CDFW Staff Report on Burrowing Owl Mitigation (CDFW 2012) shall be prepared and implemented. The Burrowing Owl Plan shall describe proposed avoidance, minimization, mitigation, and monitoring actions. The Burrowing Owl Plan shall include the number and location of occupied burrow sites, acres of burrowing owl habitat that will be impacted, details of site monitoring, and details on proposed buffers and other avoidance measures if avoidance is proposed. If impacts to occupied burrowing owl habitat or burrow cannot be avoided, the Burrowing Owl Plan shall also describe minimization and relocation actions that will be implemented. Proposed implementation of burrow exclusion and closure should only be considered as a last resort, after all other options have been evaluated. If impacts to occupied burrows cannot be avoided, information shall be provided regarding adjacent or nearby suitable habitat available to owls along with proposed relocation actions. ~~mitigation in accordance with the CDFW shall be implemented as follows:~~

~~If passive relocation actions~~ If burrowing owls are identified as being resident onsite outside the breeding season (September 1 to February 14) are determined to be necessary, coordination with CDFW will occur prior to the initiation of relocation activities, ~~they may be relocated to other sites by an approved permitted biologist (permitted approved by CDFW) or passive relocation in coordination with CDFW, as allowed in the CDFW Staff Report on Burrowing Owl Mitigation (CDFW 2012).~~

If an active burrow is found during the breeding season, the Burrowing Owl Plan shall be implemented and the burrow shall be treated as a nest site, and temporary fencing or staking with flagging shall be installed at a distance from the active burrow, to be determined by the biologist in accordance with the Burrowing Owl Plan, to prevent disturbance during grading or construction. Installation and removal of the fencing shall be done with a biological monitor present.

~~Active relocation and eviction/passive relocation require the preservation and maintenance of suitable burrowing owl habitat determined through coordination with the Wildlife Agencies.~~

BIO-PS-2: Pre-construction Bat Surveys. Prior to the initiation of Project activities within ~~300~~ 500 feet of identified potentially suitable bat roosting habitat within the Study Area, a focused bat habitat assessment ~~pre-construction bat surveys~~ will be conducted by a qualified bat

biologist. The ~~pre-construction surveys~~ bat habitat assessment will examine existing structures and trees within the Study Area that have features suitable for day roosting and/or night roosting. Suitable bat roosting features for trees (e.g., large tree cavities, basal hollows, loose or peeling bark, palm trees with intact thatch, etc.) and existing man-made structures (e.g., crevices and cracks commonly 0.5 to 4.0 inches wide, with an orientation shielded from wind and rain from above and allows entry from below or to the side; crevices with filler materials that create additional roosting surfaces, temperature regimes, and shelter) will be documented and the area around these features will be searched for bats and bat sign (guano, staining, culled insect parts) prior to project initiation.

If suitable bat-roosting habitat with potential roost sites is found during the bat habitat assessment, ~~pre-construction surveys should~~ shall occur no ~~more~~ less than 30 days prior to the initiation of Project activities, regardless of the time of year. During the pre-construction surveys, the qualified bat biologist will inspect all structures proposed for disturbance for evidence of bat occupation. Visual inspections shall focus on the identification of bat sign (i.e., individuals, guano, urine staining, corpses, feeding remains, scratch marks and bats squeaking and chattering). If evidence of bat occupation is observed during the pre-construction survey and/or the structure is unable to be sufficiently inspected to determine occupation, the pre-construction survey will also include a nighttime emergence survey component. Bat detectors, bat call analysis, and visual observation shall be used during all nighttime surveys. Nighttime emergence surveys ~~should~~ shall be conducted by a qualified bat biologist under appropriate weather conditions and moon phase. These surveys will inform the current size and composition of the roosting colony at a given structure at the time of Project activities and may dictate any modifications to the avoidance measures provided.

- a) If no evidence of bat occupation of the structure is identified during the surveys and the qualified bat biologist determines that roosting bats are unlikely to be affected by the Project activities slated to occur beneath, on, or adjacent to the structure, then Project activities may proceed as planned without a biological monitor.
- b) If evidence of bat occupation is identified during surveys and/or the emergence survey determines that bats are occupying the structure, the qualified bat biologist will identify the bats to the species level and evaluate the colony to determine its size and significance. Maternity roosts and hibernacula shall not be evicted, excluded, removed, or disturbed. The qualified bat biologist will then provide additional measures to avoid impacts to roosting bats.
- c) If bats are determined to be day roosting in the structure during the pre-construction surveys, and construction is scheduled during the bat maternity season (April 1 through August 31), construction activities at the structure shall be postponed until after August 31 and the measures outlined below will apply:

- i. A no-work buffer as determined by the qualified bat biologist shall be established. The size of the buffer shall be determined by the qualified bat biologist based on the species present and type of roost. Monitoring of Project activities shall be conducted by a qualified bat biologist.
- ii. Night lighting shall be used only on the portion of the structure actively being worked on and focused on the direct area of work.
- iii. Airspace access to and from the roost features of the structure shall not be obstructed except in direct work areas.
- iv. To the extent practicable, internal combustion equipment such as generators and vehicles are not to be parked or operated beneath or adjacent to the structures unless they are required for Project-related work on that structure.
- v. Construction personnel shall not be present in non-active areas beneath the structure.
- vi. In the case of daytime Project activities, if the biological monitor determines that construction activities are causing day-roosting bats to leave the roost during daytime hours, the monitor shall stop that construction activity immediately and for the remainder of the day. This will allow any bats that may be roosting in that structure to leave that section of the roost that evening, and work may resume the following morning with a monitor present.
- vii. In the case of nighttime Project activities on or adjacent to structures identified as night roosts, if the biological monitor determines that construction activities are causing bats to not return for night roosting or altering foraging behavior, the monitor shall stop that construction activity immediately and for the remainder of the night. This will allow any bats to return for night roosting the same night and work may resume the following night with a monitor present.
- viii. If deemed necessary by the qualified bat biologist, additional avoidance measures (such as a sound blanket) may be implemented before activities within the vicinity resume.

BIO-PS-3: Nighttime Work Avoidance. Avoid night work at all structures where night roosting has been identified. If avoiding night work is impossible, further minimization measures such as those listed below will be necessary.

- a) Night lighting shall be used only on areas actively being worked on and focused on the direct area of work.

- b) Airspace access to and from the roost features of the structure shall not be obstructed except in direct work areas.
- c) To the extent practicable, internal combustion equipment such as generators and vehicles are not to be parked or operated beneath or adjacent to the potential roosting structures unless they are required for Project-related work on that structure.
- d) Construction personnel shall not be present in non-active areas beneath the structures or vegetation designated as bat roosting habitat.
- e) Project construction activities shall, to the extent feasible, avoid the period of 1.5 hours prior to dawn and the period of 1.5 hours after dusk when bats and many nocturnal and crepuscular wildlife species are most active.

BIO-PS-4: Cliff Swallow Nest Avoidance. Some bat species may roost in cliff swallow nests at any time of year. The removal of cliff swallow nests shall be avoided to the greatest extent feasible. If cliff swallow nests must be removed, prior to removal they should shall first be observed to confirm that cliff swallows are not using the nests in accordance with Mitigation Measure BIO-5. To avoid impacts to bats, each nest shall be inspected by a qualified bat biologist experienced in inspecting mud nests, with a borescope inspection camera or similar device. If the qualified biologist, while inspecting mud nests, detects bats using mud nests as roosting habitat, the mud nests will not be disturbed while bats are present. Mud nests used by bats may be inspected by a qualified bat biologist and removed at night (i.e., beginning approximately 1.5 hours after sunset to avoid disrupting the emergence) when bats typically leave the roost to forage. Only the qualified biologist may remove mud nests. be removed by, or under the direct supervision of a CDFW approved bat biologist with a Scientific Collecting Permit from CDFW to handle bats, and in such a way that the nest is kept intact and not dropped to the ground until it can be inspected by the biologist. Swallow nest removal shall follow the guidance provided by the California Bat Working Group (CBWG) Bats in Swallow Nests resource (CBWG 2022). Specific avoidance and minimization measure shall include, but are not limited to, performing mud-nest removals between September 15 and October 31, after young are volant but before expected onset of seasonal torpor; removing previously occupied nests only if that night's weather conditions exclude severe winds, precipitation, or nighttime temperatures below 45 degrees Fahrenheit; and avoiding removals during the hibernation season, which typically begins in November or December depending on weather conditions and continues through mid-February. Nest-removal during the winter may occur at the discretion of the qualified bat biologist if the forecast excludes the weather conditions described above.

BIO-PS-5: Tree Avoidance and Removal Process. If trees are scheduled to be removed (e.g., relocating)/modified (i.e., trimming) and determined to be suitable for bat roosting or if work is expected to occur within 100 feet of suitable trees, these activities ~~should~~ shall be scheduled between September 15 and October 31 to minimize direct impacts to roosting bats. This time period is after young are volant (flying) but before expected onset of torpor

(wintering inactivity). Tree removal, relocation, or maintenance work may also be conducted between February 15 and March 31, following winter torpor and prior to the start of the maternity season. No tree removals, relocations, or maintenance shall occur during the hibernation season, which typically begins in November or December (depending on weather conditions) and continues through mid-February, due to the high potential for mortality of hibernating bats. Depending on weather conditions and the best professional judgement of a qualified bat biologist approved by CDFW, tree removal, relocation, or maintenance work may be performed in November if the forecasted nighttime low temperatures on the evening of removal and the subsequent four evenings do not drop below 45°F. In November, if weather is cold (i.e., forecasted nighttime low temperatures reach 45°F or less for that evening and the next four evenings), then no tree removals, relocations, or maintenance shall be performed. February 28 to avoid the maternity season and when evening temperatures are not below 45 degrees Fahrenheit and rain is not over 0.5 inch in 24 hours.

If tree removal/modification or work within 100 feet of suitable trees must occur during the maternity season, a qualified bat biologist shall conduct a focused emergence survey(s) of the tree(s) within 48 hours of scheduled work. If a maternity roost is located, whether solitary or colonial, that roost will remain undisturbed until after the maternity season (April 1 through August 31) or until a qualified biological monitor has determined the roost is no longer active.

If work is expected to occur outside of the bat maternity season (during conditions that meet the parameters described above), work adjacent to trees suitable as bat habitat can continue without additional surveying efforts. If trees with suitable bat roosting habitat are scheduled for removal or relocation during this time frame, removal using the two-step method should be conducted:

1. As much as feasible, vegetation and trees within the area that are not suitable for roosting bats will be removed first to provide a disturbance that might reduce the likelihood of bats using the habitat.
2. Two-step tree removal will occur over two consecutive days under the supervision of a qualified bat biologist. On Day 1, small branches and small limbs containing no cavity, crevice, or exfoliating bark habitat on habitat trees (or ~~outer live fronds~~ above the frond skirt in the case of palm trees), as identified by a qualified bat biologist are removed first, using chainsaws only (i.e., no dozers, backhoes). The following day (Day 2), the remainder of the tree is to be felled/removed. (The intention of this method is to disturb the tree with noise and vibration and branch removal on Day 1. This should cause any potentially present day-roosting bats to abandon the roost tree after they emerge for nighttime foraging. Removing the tree quickly the next consecutive day should avoid reoccupation of the tree by bats.)

Cultural Resources

CUL-PS-1: Archaeological and Tribal Monitoring. Prior to the start of construction, the Project proponent shall retain a qualified professional archaeologist or tribal monitor representing a culturally affiliated tribe to monitor all ground-disturbing activities associated with undisturbed areas of the Project during construction. Monitoring is not required for placement of equipment, filling in excavations that were monitored, work conducted in previously excavated and graded soils such as WRP 7, above-ground construction activities, or redistribution of soils that were previously monitored (such as the return of stockpiles to use in backfilling). ~~At the discretion of the lead agency, b~~Both a professional archaeologist and tribal monitor may be required to monitor ground-disturbing activities associated with known sensitive areas of the Project during construction or in the instance of unanticipated discoveries.

The archaeologist shall meet, or work under the direct supervision of someone who meets, the Secretary of the Interior's professional qualifications standards for prehistoric and historic archaeology. The archaeologist and tribal monitor shall have the authority to temporarily halt ground-disturbing or construction-related work within 100 feet of any discovery of potential historical or archaeological resources in order to implement any Project-specific mitigation measures developed to address unanticipated discoveries.

CUL-PS-2: Post-Review Discoveries. If subsurface deposits believed to be cultural or human in origin are discovered during construction, all work must halt within a 100-foot radius of the discovery. A qualified professional archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards for prehistoric and historic archaeology, shall be retained to evaluate the significance of the find, and shall have the authority to modify the no-work radius as appropriate, using professional judgment and taking into account the opinion of the tribal monitor. The following notifications shall apply, depending on the nature of the find:

- If the professional archaeologist determines that the find does not represent a cultural resource, work may resume immediately, and no agency notifications are required.
- If the professional archaeologist determines that the find does represent a cultural resource from any time period or cultural affiliation, the archaeologist shall immediately notify the lead agencies. The agencies shall consult on a finding of eligibility and implement appropriate treatment measures, if the find is determined to be a Historical Resource under CEQA, as defined in Section 15064.5(a) of the CEQA Guidelines or a historic property under Section 106 NHPA, if applicable. Work may not resume within the no-work radius until the lead agencies, through consultation as appropriate, determine that the site either: 1) is not a Historical Resource under CEQA or a Historic Property under Section 106; or 2) that the treatment measures have been completed to their satisfaction.

- If the find represents a Native American or potentially Native American resource that does not include human remains, then he or she shall further notify the Agua Caliente Band of Cahuilla Indians and the Augustine Band of Cahuilla Indians. The agencies shall consult with the tribes on a finding of eligibility and implement appropriate treatment measures, if the find is determined to be a Historical Resource under CEQA, as defined in Section 15064.5(a) of the CEQA Guidelines. Preservation in place is the preferred treatment, if feasible. Work may not resume within the no-work radius until the lead agencies, through consultation as appropriate, determine that the site either: 1) is not a Historical Resource under CEQA, as defined in Section 15064.5(a) of the CEQA Guidelines; or 2) that the treatment measures have been completed to their satisfaction.
- If the find includes human remains, or remains that are potentially human, they shall ensure reasonable protection measures are taken to protect the discovery from disturbance (AB 2641). The archaeologist shall notify the Riverside County Coroner (per Section 7050.5 of the Health and Safety Code). The provisions of Section 7050.5 of the California Health and Safety Code, Section 5097.98 of the California PRC, and AB 2641 will be implemented. If the coroner determines the remains are Native American and not the result of a crime scene, the coroner will notify the NAHC, which then will designate a Native American Most Likely Descendant (MLD) for the Project (Section 5097.98 of the PRC). The designated MLD will have 48 hours from the time access to the property is granted to make recommendations concerning treatment of the remains. If the landowner does not agree with the recommendations of the MLD, the NAHC can mediate (Section 5097.94 of the PRC). If no agreement is reached, the landowner must rebury the remains where they will not be further disturbed (Section 5097.98 of the PRC). This will also include either recording the site with the NAHC or the appropriate Information Center; using an open space or conservation zoning designation or easement; or recording a reinternment document with the county in which the property is located (AB 2641). Work may not resume within the no-work radius until the lead agencies, through consultation as appropriate, determine that the treatment measures have been completed to their satisfaction.

Geology and Soils

GEO-PS-1: Unanticipated Discovery – Paleontological Resource. If paleontological resources (i.e., fossil remains) are discovered during excavation activities, the contractor will notify CVWD and cease excavation within 50 feet of the find until a qualified paleontological professional can provide an evaluation of the find. The qualified paleontological professional will evaluate the significance of the find and recommend appropriate measures for the disposition of the resource (e.g., fossil recovery, curation, data recovery, and/or monitoring). Construction activities may continue on other parts of the construction site outside of the 50-foot buffer while evaluation and treatment of the paleontological resource takes place.

Tribal Cultural Resources

See CUL-PS-1 and CUL-PS-2.

Mitigation Measures Incorporated from the 2020 SMP PEIR

Biological Resources

BIO-2: CVMSHCP Land Use Adjacency Guidelines. Prior to final design approval for projects adjacent to a Conservation Area, compliance with Section 4.5 (Land Use Adjacency Guidelines) of the CVMSHCP shall be demonstrated. Such compliance shall include, but not necessarily be limited to, demonstrating the design of the project would not result in the release of toxins, chemicals, petroleum products, exotic plant materials, or other elements that might degrade or harm biological resources or ecosystem processes within or adjacent to a Conservation Area.

BIO-3: Pre-construction Burrowing Owl Surveys. For covered activities in Conservation Areas, or other areas as designated in Section 4.4 of the CVMSHCP, pre-construction burrowing owl surveys will be conducted by a qualified biologist within 14 days and again 24 hours prior to the implementation of ground disturbing activities. The project area and area within 500 feet of the project area (or to the edge of the property if less than 500 feet) will be surveyed for burrows that could be used by burrowing owls. If burrows are located, the biologist will determine if owls are present in the burrow. If the burrow is determined to be occupied, the burrow will be flagged and a 160-foot non-breeding season buffer or 250-foot breeding season buffer will be established around the burrow. No activities will be permitted within the buffer until the young are no longer dependent on the burrow.

If burrowing owls are identified on site, then burrow excavation and collapse activities will be necessary. Burrow excavation and collapse activities shall only be conducted during the non-breeding season for burrowing owls (September 1 through January 31). Coordination with CDFW on burrow excavation and collapse activities will need to occur, and methods will follow the specific protocols and guidance outlined in the CDFW *Staff Report on Burrowing Owl Mitigation* (2012).

BIO-5: Pre-construction Survey for Nesting Birds. Construction activities of projects shall be conducted during the non-breeding season for birds (September 16 through December 31). This will avoid violations of the MBTA and CFGC Sections 3503, 3503.5 and 3513. If activities with the potential to disrupt nesting birds are scheduled to occur during the bird breeding season (January 1 through July 31 for raptors and March 1 through September 15 for songbirds), a pre-construction nesting bird survey shall be conducted by a qualified biologist within the project area and adjacent areas where project activities have the potential to cause nest failure. If no nesting birds are observed during the survey, implementation of project activities may begin. If nesting birds (including nesting raptors) are found to be present, then avoidance or minimization measures shall be undertaken in consultation with CDFW. Measures shall include establishment of an avoidance buffer until nesting has been completed. The width of the buffer will be determined by the biologist in consultation with CDFW. Typically, this is a minimum of 300 feet from the nest site in all directions (500 feet is

typically recommended by CDFW for raptors), until the juveniles have fledged and there has been no evidence of a second attempt at nesting.

Cultural Resources

CUL-1: For projects located within Known High-Sensitivity areas and Assumed High-Sensitivity areas, a qualified archaeologist shall conduct a project-specific CEQA-compliant Phase I Cultural Resources Study for inclusion in the project-specific CEQA document. The study shall include a records search at the applicable archaeological Information Center, a search of the Sacred Lands File by NAHC, and a field survey using standard archaeological methods. These studies shall occur during the project-specific CEQA process.

For projects located within Low-Sensitivity areas a project-specific CEQA-Compliant Phase I Cultural Resources Study shall be conducted by a qualified archaeologist. However, because these areas have been subject to previous assessment, the CVWD may be able to utilize data from previous studies to reduce the effort necessary for a proposed project. Whether or not data from previous studies can be used to reduce study efforts will be dependent on the scope, methods, and age of the previous studies. These studies shall occur during the project-specific CEQA process.

CUL-2: If subsurface deposits believed to be cultural or human in origin are discovered during construction, all work must halt within a 100-foot radius of the discovery. A qualified professional archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards for pre-contact and historic archaeologist, shall be retained to evaluate the significance of the find, and shall have the authority to modify the no-work radius as appropriate, using professional judgment. The following notifications shall apply, depending on the nature of the find:

- If the professional archaeologist determines that the find does not represent a cultural resource, work may resume immediately, and no agency notifications are required.
- If the professional archaeologist determines that the find does represent a cultural resource from any time period or cultural affiliation, he or she shall immediately notify the Lead Agency, and applicable landowner. The agencies shall consult on a finding of eligibility and implement appropriate treatment measures, if the find is determined to be a Historical Resource under CEQA, as defined in Section 15064.5(a) of the CEQA Guidelines. Work may not resume within the no-work radius until the lead agencies, through consultation as appropriate, determine that the site either: 1) is not a Historical Resource under CEQA, as defined in Section 15064.5(a) of the CEQA Guidelines; or 2) that the treatment measures have been completed to their satisfaction.
- If the find includes human remains, or remains that are potentially human, he or she shall ensure reasonable protection measures are taken to protect the discovery from

disturbance (AB 2641). The archaeologist shall notify the appropriate County Coroner (per § 7050.5 of the Health and Safety Code). The provisions of § 7050.5 of the California Health and Safety Code, § 5097.98 of the California Public Resources Code, and Assembly Bill (AB) 2641 will be implemented. If the Coroner determines the remains are Native American and not the result of a crime scene, the Coroner will notify the NAHC, which then will designate a Native American Most Likely Descendant (MLD) for the project (§ 5097.98 of the Public Resources Code). The designated MLD will have 48 hours from the time access to the property is granted to make recommendations concerning treatment of the remains. If the landowner does not agree with the recommendations of the MLD, the NAHC can mediate (§ 5097.94 of the Public Resources Code). If no agreement is reached, the landowner must rebury the remains where they will not be further disturbed (§ 5097.98 of the Public Resources Code). This will also include either recording the site with the NAHC or the appropriate Information Center; using an open space or conservation zoning designation or easement; or recording a reinternment document with the county in which the property is located (AB 2641). Work may not resume within the no-work radius until the lead agencies, through consultation as appropriate, determine that the treatment measures have been completed to their satisfaction.

Hydrology and Water Quality

HYD-1: Stormwater Management Facilities. To mitigate for the alteration of existing drainage patterns that could result in erosion, siltation, flooding, polluted runoff, and/or impede or redirect flood flows, CVWD will consider surface water runoff increases from new impervious surfaces and drainage patterns during planning and design phases of each project. Each site would include design of improved stormwater management facilities onsite to avoid offsite discharge that would exceed the capacity of the stormwater system or cause flooding. A grading and drainage plan will be included in each improvement plan set for construction. The plan will identify and implement temporary and permanent BMPs and other construction controls to ensure that increases in stormwater flows off-site are minimized.

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LIST OF ACRONYMS AND ABBREVIATIONS

Term	Definition
AB	Assembly Bill
ACBCI	Agua Caliente Band of Cahuilla Indian
ACHP	Advisory Council on Historic Preservation
ACS	American Community Survey
AFY	acre feet per year
AHPA	Archaeological and Historic Preservation Act
ALUCP	Airport Land Use Compatibility Plan
AMI	area median income
APE	Area of Potential Effects

Term	Definition
APN	Assessor’s Parcel Numbers
AQMP	Air Quality Management Plan
BAAQMD	Bay Area Air Quality Management District
BMPs	Best Management Practices
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CalEEMod	California Emissions Estimator Model
CalEPA	California Environmental Protection Agency
CAL FIRE	California Department of Forestry and Fire Protection
CalGreen	California Green Building Standards Code
Caltrans	California Department of Transportation
CAP	Climate Action Plan
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CBC	California Building Code
CBRA	Coastal Barrier Resources Act
CBRS	Coastal Barrier Resources System
CBWG	California Bat Working Group
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission
CEQ	Council on Environmental Quality
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CH ₄	methane
CHP	California Highway Patrol
CHRIS	California Historical Resources Information System
CNDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society
CNPSEI	California Native Plant Society Electronic Inventory
CO	carbon monoxide
CO ₂	carbon dioxide
CO ₂ e	carbon dioxide equivalent
CRHR	California Register of Historic Resources
CUPA	Certified Unified Program Agency
CV Link	Coachella Valley Link
CVMSHCP	Coachella Valley Multiple Species Habitat Conservation Plan
CVWD	Coachella Valley Water District
CWA	Clean Water Act
CWSRF	Clean Water State Revolving Fund

Term	Definition
CZMA	Coastal Zone Management Act
CZMP	Coastal Zone Management Program
DACs	disadvantaged communities
DHS	California Department of Health Services
DOC	California Department of Conservation
DPM	diesel particulate matter
DSUSD	Desert Sands Unified School District
DTSC	Department of Toxic Substances Control
DWR	California Department of Water Resources
EIC	Eastern Information Center
EIR	Environmental Impact Report
EFH	Essential Fish Habitat
ESA	Endangered Species Act
EO	Executive Order
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FIRM	Flood Insurance Rate Map
FMMP	Farmland Mapping and Monitoring Program
FPPA	Farmland Protection Policy Act
FTA	Federal Transit Administration
GHG	greenhouse gas
gpm	gallons per minute
GPS	Global Positioning System
HCD	California Department of Housing and Community Development
HP	horsepower
HPIR	Historic Property Identification Report
IID	Imperial Irrigation District
IPaC	Information for Planning and Consultation
IS/MND	Initial Study/Mitigated Negative Declaration
IWA	Indio Water Authority
L _{dn}	Day-Night Average
L _{eq}	Equivalent Noise Level
LHMP	Local Hazard Mitigation Plan
LSA	Lake Streambed Alteration Agreement
LST	Localized Significance Threshold
MBTA	Migratory Bird Treaty Act
MCCs	motor control centers
MG	million gallons
MGD	million gallons per day
MLD	Most Likely Descendent
MMC	Map My County

Term	Definition
MND	Mitigated Negative Declaration
MP	Mile Post
MRZ	Mineral Resource Zone
MSA	Magnuson-Stevens Fishery Conservation and Management Act
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
ND	Negative Declaration
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NIOSH	National Institute for Occupational Safety and Health
NMFS	National Marine Fisheries Service
NPS	National Park Service
NPW	non-potable water
N ₂ O	nitrous oxide
NO _x	nitrogen oxides
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NWI	National Wetland Inventory
NWSRS	National Wild and Scenic Rivers System
O ₃	ozone
OEHHA	California Office of Environmental Health Hazard Assessment
OPR	California Office of Planning and Research
PM	particulate matter
PM _{2.5}	fine particulate matter (diameter of 2.5 microns or less)
PM ₁₀	coarse particulate matter (diameter of 10 microns or less)
PMP	Project Master Plan
PPV	peak particle velocity
PRC	Public Resources Code
RCPG	Regional Comprehensive Plan and Guide
RHA	Rivers and Harbors Act of 1899
ROG	Reactive Organic Gases
RTP/SCS	Regional Transportation Plan/Sustainable Communities Strategy
RUWMP	Regional Urban Water Management Plan
RW	recycled water
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCS	Sustainable Communities Strategy
SDWA	Safe Drinking Water Act of 1974
SHPO	State Historic Preservation Officer

Term	Definition
SIP	State Implementation Plan
SLF	Sacred Lands File
SMARA	Surface Mining and Reclamation Act of 1975
SO ₂	sulfur dioxide
SP	Specific Plan
SR	State Route
SRA	Source Receptor Area
SSAB	Salton Sea Air Basin
SSC	Species of Special Concern
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAC	toxic air contaminant
TCR	tribal cultural resources
USACE	United States Army Corps of Engineers
USC	U.S. Code
USEPA	U.S. Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
UV	ultraviolet
VHFHSZ	Very High Fire Hazard Severity Zone
VSD	Valley Sanitation District
WDR	Waste Discharge Requirement
WRP	Water Reclamation Plant
WSC	Water Systems Consulting, Inc.

1.0 BACKGROUND

1.1 Summary

Project Title: Water Reclamation Plant No. 7 (WRP 7) Phase 1 Non-Potable Water Improvements Project

Lead Agency Name and Address: Coachella Valley Water District
75-515 Hovley Lane East
Palm Desert, California 92211

Contact Person and Phone Number: William Patterson
Coachella Valley Water District, Environmental Supervisor
(760) 398-2661
wpatterson@cvwd.org

Project Location: The Project Area includes the northwest portion of CVWD's Water Reclamation Plant (WRP) 7, located south of Avenue 38 along Madison Street in the City of Indio in Riverside County, California. The Mile Post (MP) 113.2 pump station is located on the southwest corner of the Madison Street and Avenue 40 intersection. The proposed pipeline would in the existing roadway of Jefferson Street and on private property north of Young Way. The Project Area includes seven parcels: APNs 691-100-029 and 691-100-030, which are located south of Avenue 38, north of Lindy Lane, west of Madison Street, and east of Burr Street; APN 691-180-006, which is south of Avenue 40 and west of Madison Street, adjacent to the canal; APN 691-050-021, which is at the western end of Young's Way; and APNs 691-060-010, 691-050-010, and 691-050-012, the Young's Farmland property (Figures 1 and 2).

General Plan Designation: Public and Institutional, ROW, Parks and Open Space, Desert Estates Transition, Golf Course

Zoning: PI – Public and Institutional, ROW, OS – Parks and Open Space, DET-3 – Desert Estates Transition-3, Golf Course

1.2 Introduction

Coachella Valley Water District (CVWD) is the Lead Agency for this California Environmental Quality Act (CEQA) Initial Study. This Initial Study has been prepared to identify and assess the anticipated environmental impacts of the Water Reclamation Plant No. 7 (WRP 7) Phase 1 Non-Potable Water Improvements Project (Project) to satisfy CEQA (Public Resources Code [PRC], Section 21000 et seq.) and state CEQA Guidelines (Title 14, California Code of Regulations [CCR] 15000 et seq.). This document tiers from the Coachella Valley Water District Sanitation Master Plan (SMP) Update 2020 Final Program EIR (PEIR) (2020 SMP PEIR) per CEQA Guidelines PRC Sections 15152 and 21083.3 (CVWD 2022). CEQA requires that all state and local government agencies consider the environmental consequences before approving those projects. CVWD will use the 2020 SMP PEIR and this CEQA Initial Study to determine

which CEQA document is appropriate for the Project: Negative Declaration (ND), Mitigated Negative Declaration (MND), or Environmental Impact Report (EIR). The analysis in this Initial Study determined that an MND would be the appropriate CEQA document.

In accordance with CEQA, this Initial Study/Mitigated Negative Declaration (IS/MND) will be circulated for a 30-day public review and comment period. Written comments on the Draft IS/MND should be submitted to:

William Patterson, Environmental Supervisor
 Coachella Valley Water District
 75-515 Hovley Lane East
 Palm Desert, California 92211
wpatterson@cvwd.org

1.3 Surrounding Land Uses/Environmental Setting

The Project Area is located in the City of Indio in Riverside County (Figure 1). The City of Indio is bordered by the City of La Quinta to the west, unincorporated Riverside County to the south and north, and the City of Coachella to the east. Table 1.3-1 lists the land use designation and zoning designation for the Project Area and surrounding area, as well as the existing land use. Areas in unincorporated Riverside County to the north and east of the Project Area are consistent with the Coachella Valley Multiple Species Habitat Conservation Plan (CVMSHCP) and are part of the Resource Management and Open Space Overlay.

Table 1.3-1. Surrounding Land Uses			
	Land Use Designation	Zoning Designation	Existing Land Use
Project Area	<u>City of Indio</u> Public and Institutional Right-of-way Parks and Open Space Desert Estates Transition <u>Sun City Shadow Hills Project Master Plan (PMP)</u> Golf Course	<u>City of Indio</u> PI – Public and Institutional Right-of-way OS – Parks and Open Space DET-3 – Desert Estates Transition-3 <u>Sun City Shadow Hills PMP</u> Golf Course	Water Treatment Facility, Roadway, Farm
North	<u>City of Indio</u> Suburban Neighborhood High Resource Management and Open Space Overlay Desert Estates Transition <u>Talavera Specific Plan (SP)</u> Low Density Residential <u>Sun City Shadow Hills Expansion SP</u> Open Space	<u>City of Indio</u> SN - 8 – Suburban Neighborhood - 8 R-OS – Resource Management and Open Space Overlay DET-3 – Desert Estates Transition-3 <u>Talavera SP</u> RL – Low Density Residential <u>Sun City Shadow Hills Expansion SP</u> Open Space	Single Family Residences, Undeveloped Land, Open Space, Canal

Table 1.3-1. Surrounding Land Uses			
	Land Use Designation	Zoning Designation	Existing Land Use
East	<p><u>City of Indio</u> Public and Institutional Suburban Neighborhood High Resource Management and Open Space Overlay Suburban Neighborhood Low Parks and Open Space</p> <p><u>Sun City Shadow Hills Expansion SP</u> Public Utility Residential Use Open Space</p> <p><u>Sun City Shadow Hills PMP</u> Golf Course Residential</p>	<p><u>City of Indio</u> PI – Public and Institutional SN - 8 – Suburban Neighborhood - 8 R-OS – Resource Management and Open Space Overlay SN - 4 – Suburban Neighborhood – 4 OS – Parks and Open Space</p> <p><u>Sun City Shadow Hills Expansion SP</u> Public Utility RL – Residential Use Open Space</p> <p><u>Sun City Shadow Hills PMP</u> Golf Course RL – Residential</p>	<p>Water Treatment Facility, Single Family Residences, Golf Course, Undeveloped Land, Open Space, Utilities, Canal</p>
South	<p><u>City of Indio</u> Suburban Neighborhood High Desert Estates Transition Suburban Neighborhood Low Parks and Open Space</p> <p><u>Sun City Shadow Hills Expansion SP</u> Residential Use Golf Course</p> <p><u>Sun City Shadow Hills PMP</u> Residential Golf Course</p>	<p><u>City of Indio</u> SN - 8 – Suburban Neighborhood – 8 DET-3 – Desert Estates Transition-3 SN - 4 – Suburban Neighborhood – 4 OS – Parks and Open Space</p> <p><u>Sun City Shadow Hills Expansion SP</u> RL – Residential Use Golf Course</p> <p><u>Sun City Shadow Hills PMP</u> RL – Residential Golf Course</p>	<p>Farms, Single Family Residences, Vacant Land, Church, Golf Course, Canal</p>
West	<p><u>City of Indio</u> Suburban Neighborhood High Suburban Neighborhood Low Desert Estates Transition</p> <p><u>Talavera SP</u> Low Density Residential</p> <p><u>Sun City Shadow Hills PMP</u> Residential Golf Club House Golf Course</p>	<p><u>City of Indio</u> SN - 8 – Suburban Neighborhood - 8 SN - 4 – Suburban Neighborhood - 4 DET-3 – Desert Estates Transition-3</p> <p><u>Talavera SP</u> RL – Low Density Residential</p> <p><u>Sun City Shadow Hills PMP</u> Residential Golf Club House Golf Course</p>	<p>Farms, Single Family Residences, Vacant Land, Golf Course</p>

Source: City of Indio 2019a; City of Indio 2022a; Ludwig Engineering et al. 2004; Ludwig Engineering 2007; Mainiero, Smith and Associates, Inc. 2004



Location: N:\2022\2022-202 CVWD WRP 7 Upgrade\MAP5\Location_Vicinity\WRP7_Vicinity (trotellini - 5/5/2023)

Map Date: 5/5/2023
Sources: ESRI

Figure 1. Project Vicinity



Figure 2. Project Location

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2.0 PROJECT DESCRIPTION

2.1 Project Background

Based on Coachella Valley Water District's Sanitation Master Plan, CVWD desires to expand tertiary treatment at WRP 7 to provide Title 22 water to additional irrigation and golf course customers. Growth in the WRP 7 service area is expected to increase plant influent flows to 6.2 million gallons per day (MGD) by 2040. In response to this growth, CVWD has planned several projects as part of two phases to expand WRP 7 treatment capacity to meet demands and recycle 100 percent of the WRP 7 influent.

The WRP 7 facility is currently rated to treat flows of 5 MGD. The secondary processes at the plant have a 5 MGD capacity, and the tertiary processes including filtration and disinfection have a capacity of 2.5 MGD. Canal water is supplied to the non-potable water (NPW) distribution system from pump station MP 113.2, and intermittently blended with recycled water (RW) to meet variations in customer demand.

2.2 Project Objectives

CVWD is improving existing tertiary treatment plant processes and an existing canal pump station to expand RW and NPW deliveries, and ultimately reduce the usage of NPW imported from the Colorado River via the Coachella Canal and reduce groundwater pumping in the area for protection of the aquifer. The generation of more RW will benefit existing NPW/RW users in the WRP 7 service area.

2.3 Project Characteristics

The WRP 7 Tertiary Treatment Improvements and MP 113.2 Pump Station Rehabilitation Project includes the following upgrades:

- Retrofit the existing dual media filter basins with cloth disk filters to improve tertiary treatment to match the rated capacity of the plant within the same footprint.
- Construct a low-pressure UV system with 12 lamps and 2 channels (100 ml/cm²) to match the rated capacity of the plant in accordance with Title 22 regulations, in an enclosed 44-foot by 61-foot building and with an electrical building to substitute use of chlorine gas.
- Abandon the existing chlorine gas system, and maintain the existing chlorine contact basin for potential future use by operations for effluent/backwash holding.
- Upgrade of the existing systems associated with the tertiary process includes the in-kind replacement of the following:
 - Secondary effluent flocculation system
 - Tertiary process chemical feed systems, including sodium hypochlorite storage in fiber-reinforced plastic-coated steel tanks. Includes replacement of existing feed pumps for additional capacity due to increased tertiary flows and feed piping.

- In-plant secondary effluent, and NPW delivery pumping systems capacity increase for a 5.5 MGD system (2.5 MGD existing).
- Tertiary Process electrical motor control centers (MCCs). A new electrical control building would house existing and new components.

CVWD is also replacing the aged infrastructure at canal water delivery pump station MP 113.2 as part of this Proposed Project. To maintain the current capacity of the pump station, the two existing pumps and MCC's are being replaced with more efficient pumps and drives requiring less horsepower. The motors would be approximately 10 percent more efficient, and horsepower (HP) would be reduced from 150-HP to 100-HP per pump. A third pump is being added to allow operations to perform routine maintenance while maintaining facility capacity in a typical two-duty and one-standby configuration. All improvements to the pump station are within the existing MP 113.2 site located on the southwest corner of the Madison Street and Avenue 40 intersection.

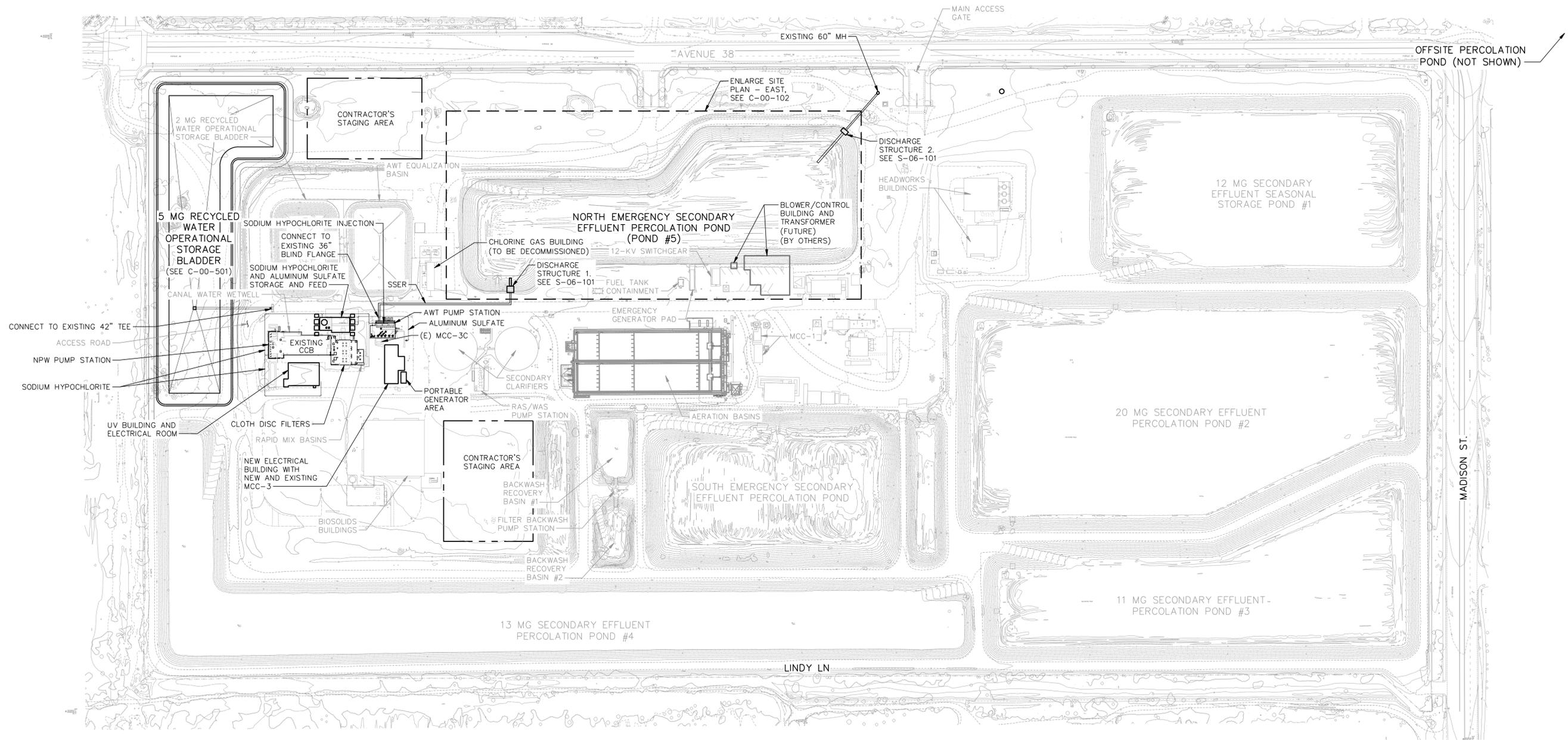
All proposed WRP 7 and MP 113.2 pump station improvements are within existing CVWD facility sites. The Project proposes to retrofit and improve the WRP 7 tertiary treatment system to 5.5 MGD capacity; with overall treated water effluent capacity from the facility remaining the same.

The Proposed Project would also install approximately 2,500 linear feet of NPW pipeline to connect Young's Farmland to the existing NPW pipeline on Avenue 38. Young's Farmland currently uses groundwater for irrigation. The Proposed Project would convert the primary irrigation source from groundwater to recycled water. The Young's Farmland NPW pipeline would be installed within the right-of-way of Jefferson Street and on Young's Farmland property (APN 691-060-010, 691-050-010, and 691-050-012) (Figure 3).

2.4 Project Timing

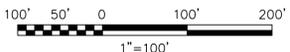
It is anticipated that construction would begin in June 2024, last approximately 18 months, reach substantial completion in 2025, and that the new systems would be online in late 2025.

DWG. NO.: 406638-E-602 FILE NO.: _____ UPDATE BY: TVL PROJ. ENG.: _____ PLOT DATE: _____ PLOT TIME: 12:48PM PLOT SCALE: 1" = 80'



NOTES:

1. CONTRACTOR SHALL LAYOUT THE SITE TO PROVIDE ALL NECESSARY PARKING, STAGING, WASHDOWN, AND STOCKPILE AREAS, ETC. CONSTRUCTION SITE LAYOUT SHALL BE SUBMITTED TO THE CITY FOR REVIEW AND APPROVAL.
2. CONTRACTOR SHALL MAINTAIN ACCESS TO EXISTING FACILITIES AT ALL TIMES DURING CONSTRUCTION. WHERE NECESSARY TO ENCROACH ONTO EXISTING ACCESS ROAD CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY. CONTRACTOR SHALL INSTALL TEMPORARY SAFETY FENCING AROUND ALL WORK AREAS FOR PROTECTION OF CITY STAFF.
3. CONTRACTOR SHALL MANAGE THE CONTRACTOR LAYDOWN AREA SUCH THAT NO SITE CONTAMINATION FROM OILS, FUELS, CHEMICAL OR OTHER POLLUTING CONSTITUENTS SHALL LEAVE THE AREA THROUGH RUNOFF OR INFILTRATION.



C.V.W.D. DRAWING APPROVAL		DATE
Checked:	PROJECT ENGINEER	—
Recommended:	DIRECTOR OF ENGINEERING	DWG. No. —
REVISIONS:		DATE APPR.



 DIAL TOLL FREE 811

 AT LEAST TWO DAYS BEFORE YOU DIG

 UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA

SYMBOL	REVISIONS	DATE	BY



 APPROVED BY _____

 REGISTERED ENGINEER No. _____ DATE _____

SCALE	NONE
FIELD BOOK	—
DESIGN	JMR
DRAWN	TVL
CHECKED	—

COACHELLA VALLEY WATER DISTRICT

 IN THE CITY OF INDIO, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA

WATER RECLAMATION PLANT No. 7

PHASE 1 NPW WATER IMPROVEMENTS

SITE PLAN

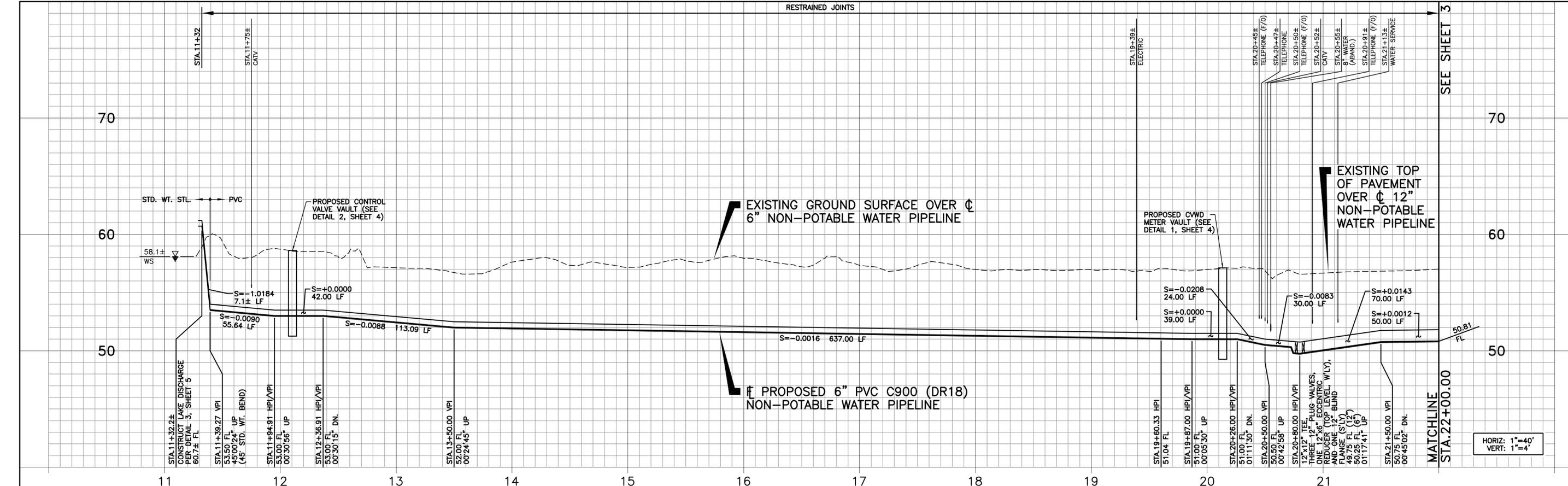
 LOCATED WITHIN SECTION 4, TOWNSHIP 5 SOUTH, RANGE 7 EAST.

DRAWING

C-00-101

 XX OF XX SHEETS

 DRAWING No. —

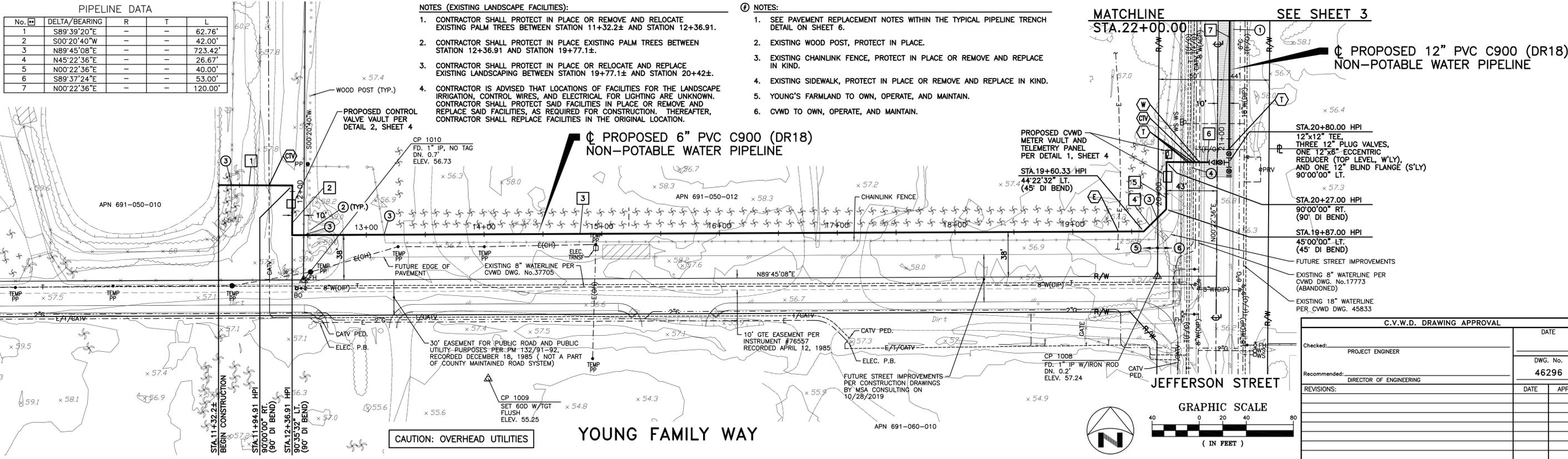


PIPELINE DATA

No.	DELTA/BEARING	R	T	L
1	S89°39'20"E	-	-	62.76'
2	S00°20'40"W	-	-	42.00'
3	N89°45'08"E	-	-	723.42'
4	N45°22'36"E	-	-	26.67'
5	N00°22'36"E	-	-	40.00'
6	S89°37'24"E	-	-	53.00'
7	N00°22'36"E	-	-	120.00'

- NOTES (EXISTING LANDSCAPE FACILITIES):
- CONTRACTOR SHALL PROTECT IN PLACE OR REMOVE AND RELOCATE EXISTING PALM TREES BETWEEN STATION 11+32.2± AND STATION 12+36.91.
 - CONTRACTOR SHALL PROTECT IN PLACE EXISTING PALM TREES BETWEEN STATION 12+36.91 AND STATION 19+77.1±.
 - CONTRACTOR SHALL PROTECT IN PLACE OR RELOCATE AND REPLACE EXISTING LANDSCAPING BETWEEN STATION 19+77.1± AND STATION 20+42±.
 - CONTRACTOR IS ADVISED THAT LOCATIONS OF FACILITIES FOR THE LANDSCAPE IRRIGATION, CONTROL WIRES, AND ELECTRICAL FOR LIGHTING ARE UNKNOWN. CONTRACTOR SHALL PROTECT SAID FACILITIES IN PLACE OR REMOVE AND REPLACE SAID FACILITIES, AS REQUIRED FOR CONSTRUCTION. THEREAFTER, CONTRACTOR SHALL REPLACE FACILITIES IN THE ORIGINAL LOCATION.

- NOTES:
- SEE PAVEMENT REPLACEMENT NOTES WITHIN THE TYPICAL PIPELINE TRENCH DETAIL ON SHEET 6.
 - EXISTING WOOD POST, PROTECT IN PLACE.
 - EXISTING CHAINLINK FENCE, PROTECT IN PLACE OR REMOVE AND REPLACE IN KIND.
 - EXISTING SIDEWALK, PROTECT IN PLACE OR REMOVE AND REPLACE IN KIND.
 - YOUNG'S FARMLAND TO OWN, OPERATE, AND MAINTAIN.
 - CWVD TO OWN, OPERATE, AND MAINTAIN.



MATCHLINE STA. 22+00.00 SEE SHEET 3

PROPOSED 12" PVC C900 (DR18) NON-POTABLE WATER PIPELINE

C.V.W.D. DRAWING APPROVAL

Checked:	PROJECT ENGINEER	DATE
Recommended:	DIRECTOR OF ENGINEERING	DWG. No. 46296
REVISIONS:	DATE	APPR.

DIGALERT
DIAL TOLL FREE 811
AT LEAST TWO DAYS BEFORE YOU DIG
UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA

BASIS OF BEARING: THE BEARINGS SHOWN HEREON ARE BASED ON THE CENTERLINE OF 38TH AVENUE BEING N89°38'51"E AS SHOWN ON CORNER RECORD CR170434 RIVERSIDE COUNTY RECORDS.
THE ELEVATION DATUM FOR THIS SURVEY IS BASED ON NGS BENCH MARK Z 1311, PID DX3452 WITH A STATED ADJUSTED NAVD88 ELEVATION OF 34.72 SFT. THE NAVD88 ELEVATION WAS CONVERTED TO NAD83 USING THE NGS VERTCON CONVERSION PROGRAM. THE NETWORK WAS MEASURED BY GPS RTK OBSERVATIONS.

BENCHMARK: Z 1311
ELEVATION= 32.52 SFT. (NGVD29)
FD. 3" DIA. BRASS DISK IN TOP OF HEADWALL, 58± FT. SOUTHWEST OF THE CENTERLINE OF SOUTHEAST BOUND LANE OF HWY 10 BUSINESS LOOP (INDIO AVE.) AND 52± NORTHWEST OF MADIO STREET.

SYM	REVISIONS	DATE	BY

KRIEGER & STEWART
Engineering Consultants
3602 University Avenue • Riverside, CA 92501
www.kriegerandstewart.com • 951-684-6900

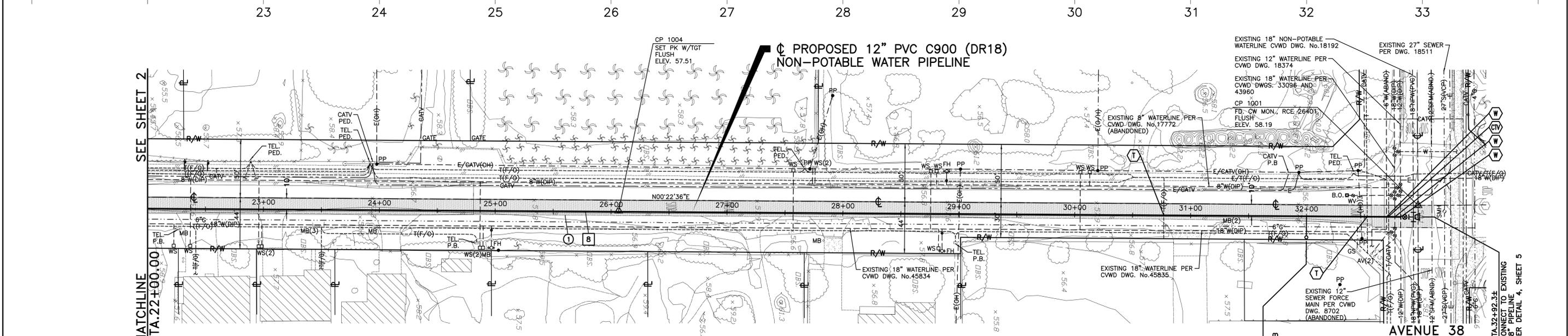
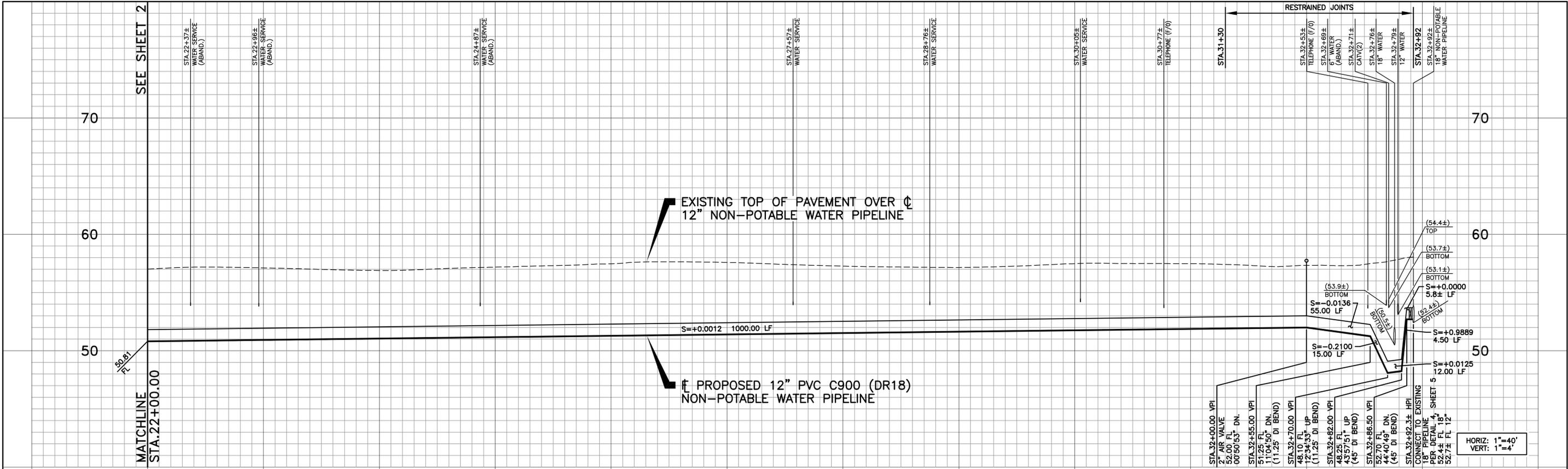
APPROVED BY _____
REGISTERED ENGINEER No. _____ DATE _____

SCALE
1"=40'H, 1"=4"V
FIELD BOOK N/A
DESIGN SS/JBM
DRAWN TMW
CHECKED SMB

COACHELLA VALLEY WATER DISTRICT
IN THE CITY OF INDIO, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA
YOUNG'S FARMLAND NON-POTABLE WATER CONNECTION PROJECT
PLAN AND PROFILE
STA. 11+32.2± TO STA. 22+00.00
LOCATED WITHIN SECTIONS 4 AND 5, TOWNSHIP 5 SOUTH, RANGE 7 EAST, S8M

SHEET **2**
OF 6 SHEETS
324-34.29
PROJECT No.

DWG. NO.: 324-34299_03 FILE NO.: 324-34299_UPDATE BY: SPK_PROJ. ENG.: SAN_PLOT DATE: 12/19/22_PLOT TIME: 1:13PM_PLOT SCALE: 1"=1'
 1"=40'
 1"=4'



SEE SHEET 2
 MATCHLINE
 STA.22+00.00

SEE SHEET 2
 MATCHLINE
 STA.22+00.00

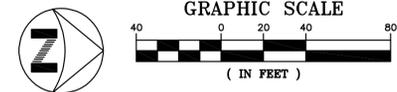
STA.32+92.34
 CONNECT TO EXISTING
 18" PIPELINE
 PER DETAIL 4, SHEET 5

JEFFERSON STREET

- NOTES:**
- SEE PAVEMENT REPLACEMENT NOTES WITHIN THE TYPICAL PIPELINE TRENCH DETAIL ON SHEET 6.

PIPELINE DATA				
No.	DELTA/BEARING	R	T	L
8	N00°22'36"E	-	-	1092.28'

CAUTION: OVERHEAD UTILITIES



C.V.W.D. DRAWING APPROVAL		DATE
Checked:	PROJECT ENGINEER	
Recommended:	DIRECTOR OF ENGINEERING	
REVISIONS:		DATE APPR.

DIGALERT
 DIAL TOLL FREE
811
 AT LEAST TWO DAYS
 BEFORE YOU DIG
 UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA

BASIS OF BEARING:
 THE BEARINGS SHOWN HEREON ARE BASED ON THE CENTERLINE OF 38TH AVENUE BEING N89°38'51"E AS SHOWN ON CORNER RECORD CR170434 RIVERSIDE COUNTY RECORDS.
 THE ELEVATION DATUM FOR THIS SURVEY IS BASED ON NGS BENCH MARK Z 1311, PID DX3452 WITH A STATED ADJUSTED NAVD88 ELEVATION OF 34.72 SFT. THE NAVD88 ELEVATION WAS CONVERTED TO NAVD29 USING THE NGS VERTCON CONVERSION PROGRAM. THE NETWORK WAS MEASURED BY GPS RTK OBSERVATIONS.

SYM	REVISIONS	DATE	BY

KRIEGER & STEWART
 Engineering Consultants
 3602 University Avenue • Riverside, CA 92501
 www.kriegerandstewart.com • 951-684-6900

APPROVED BY _____
 REGISTERED ENGINEER No. _____ DATE _____

SCALE	1"=40'H, 1"=4'V
FIELD BOOK	N/A
DESIGN	SS/JBM
DRAWN	TMW
CHECKED	SMB

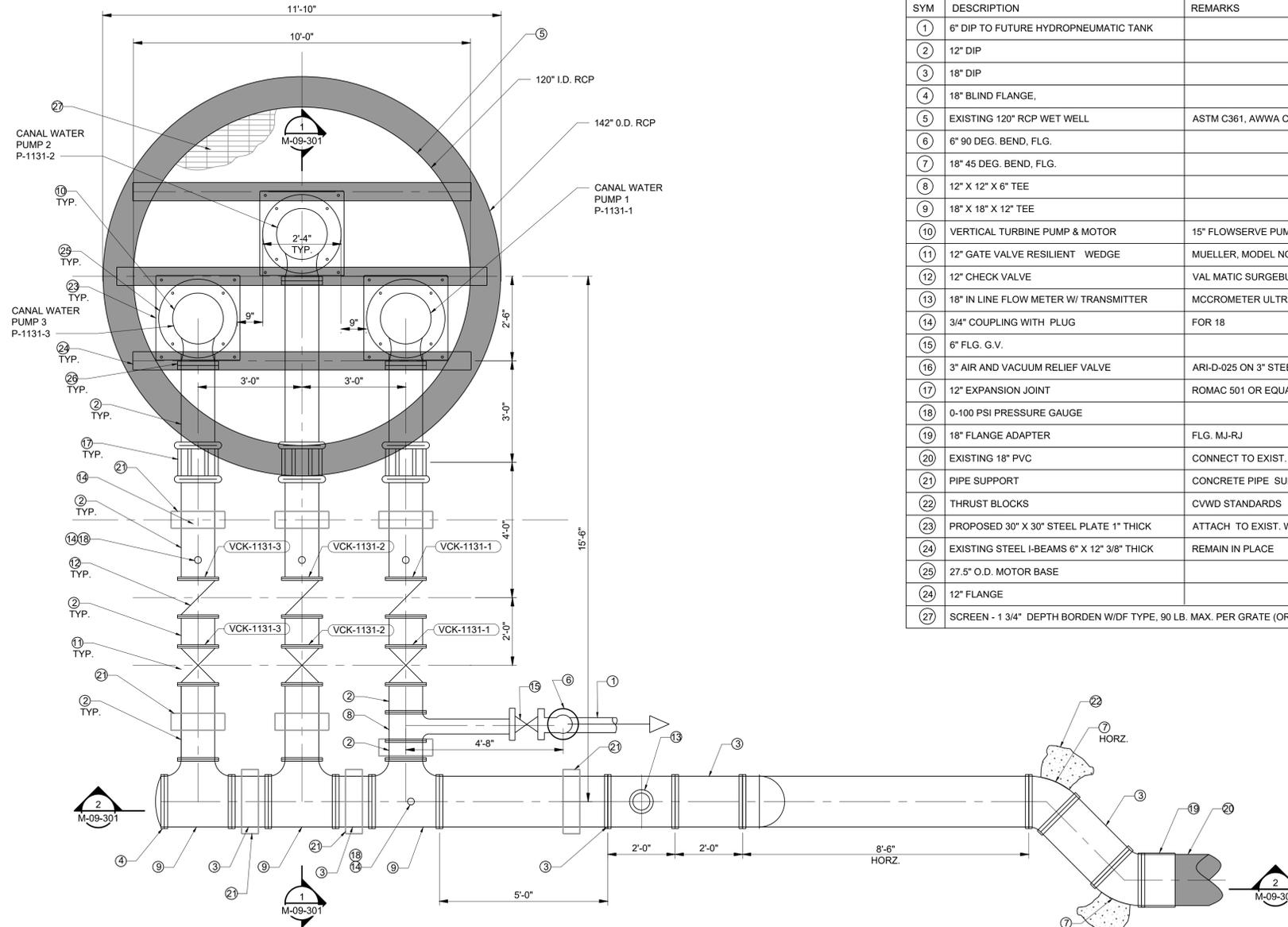
COACHELLA VALLEY WATER DISTRICT
 IN THE CITY OF INDIO, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA
YOUNG'S FARMLAND NON-POTABLE WATER CONNECTION PROJECT

PLAN AND PROFILE
 STA.22+00.00 TO STA.32+92.34
 LOCATED WITHIN SECTIONS 4 AND 5, TOWNSHIP 5 SOUTH, RANGE 7 EAST, SBM

SHEET
3
 OF 6 SHEETS
 324-34299
 PROJECT No.

WRP-7
MP 113.2 PUMP STATION
MATERIALS TABLE

SYM	DESCRIPTION	REMARKS	QUANTITIES
①	6" DIP TO FUTURE HYDROPNEUMATIC TANK		
②	12" DIP		
③	18" DIP		
④	18" BLIND FLANGE		
⑤	EXISTING 120" RCP WET WELL	ASTM C361, AWWA C302, REMAIN IN PLACE	
⑥	6" 90 DEG. BEND, FLG.		
⑦	18" 45 DEG. BEND, FLG.		
⑧	12" X 12" X 6" TEE		
⑨	18" X 18" X 12" TEE		
⑩	VERTICAL TURBINE PUMP & MOTOR	15" FLOWSERVE PUMP, 3800 GPM, TDH = 63', 75 HP, 1775 RPM 12" DISCHARGE, ANTI VORTEX STRAINER	3
⑪	12" GATE VALVE RESILIENT WEDGE	MUELLER, MODEL NO. 2362, FLANGED, OR APPROVED EQUAL	3
⑫	12" CHECK VALVE	VAL MATIC SURGEBUSTER, SILENT NON-SLAM FLANGED, OR APPROVED EQUAL	3
⑬	18" IN LINE FLOW METER W/ TRANSMITTER	MCCROMETER ULTRA MAG MODEL UM-06, FLANGE	1
⑭	3/4" COUPLING WITH PLUG	FOR 18"	1
⑮	6" FLG. G.V.		1
⑯	3" AIR AND VACUUM RELIEF VALVE	ARI-D-025 ON 3" STEEL NIPPLE	1
⑰	12" EXPANSION JOINT	ROMAC 501 OR EQUAL	3
⑱	0-100 PSI PRESSURE GAUGE		
⑲	18" FLANGE ADAPTER	FLG. MJ-RJ	1
⑳	EXISTING 18" PVC	CONNECT TO EXIST. 18" PVC, REMAIN IN PLACE	
㉑	PIPE SUPPORT	CONCRETE PIPE SUPPORT DETAIL, PIPE SIZE AS SHOWN	3
㉒	THRUST BLOCKS	CVWD STANDARDS	2
㉓	PROPOSED 30" X 30" STEEL PLATE 1" THICK	ATTACH TO EXIST. WF 6 X12 I-BEAM	3
㉔	EXISTING STEEL I-BEAMS 6" X 12" 3/8" THICK	REMAIN IN PLACE	3
㉕	27.5" O.D. MOTOR BASE		
㉖	12" FLANGE		
㉗	SCREEN - 1 3/4" DEPTH BORDEN W/DF TYPE, 90 LB. MAX. PER GRATE (OR APPROVED EQUAL)		



NEW THREE PUMPS SYSTEM
SCALE: 1/2" = 1'-0"

CONSTRUCTION NOTE:

CONTRACTOR TO REMOVE EXISTING PUMPS (3), VALVES, FITTINGS, FLOWMETER, AND STEEL MANIFOLD FROM WET WELL TO EXISTING 18" PVC TIE-IN

C.V.W.D. DRAWING APPROVAL		DATE
Checked by:	PROJECT ENGINEER:	-
Recommended by:	DIRECTOR OF ENGINEERING:	-
REVISIONS:	DATE	APPR.



SYM	REVISIONS	DATE	BY



APPROVED BY: _____
REGISTERED ENGINEER No. 24951 DATE 01-09-2023

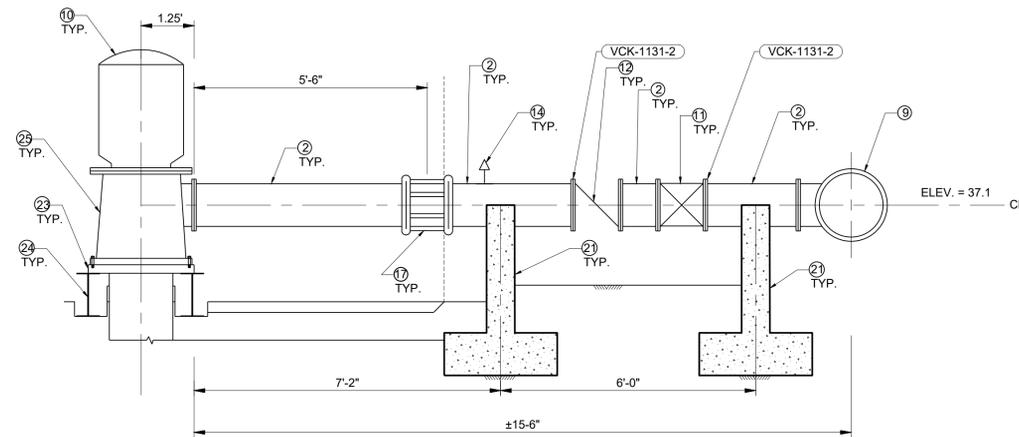
SCALE	1/2" = 1'-0"
FIELD BOOK	-
DESIGN	BRO
DRAWN	GG
CHECKED	BRO

COACHELLA VALLEY WATER DISTRICT
IN THE CITY OF INDIO, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA
WATER RECLAMATION PLANT No.7
PHASE 1 NPW WATER IMPROVEMENTS
MP 113.2 PUMP STATION PLAN
LOCATED WITHIN SECTION 4, TOWNSHIP 5 SOUTH, RANGE 7 EAST.

DRAWING
M-09-101
XX OF XX SHEETS
DRAWING No. _____

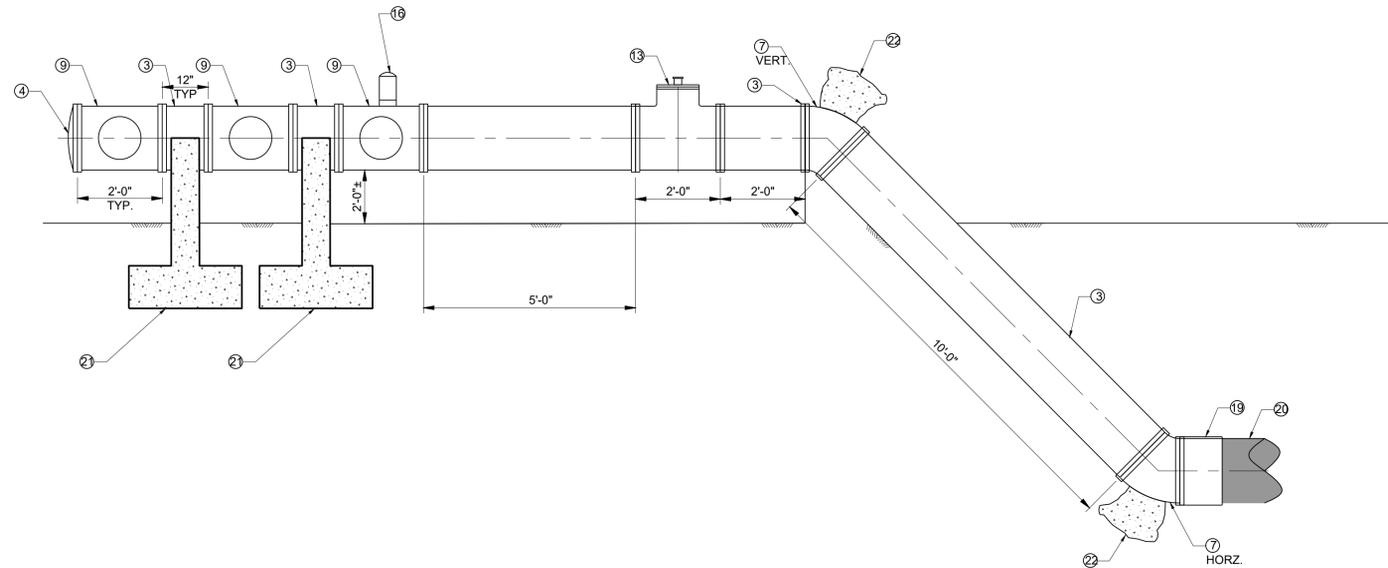
DWG. NO.: 406638-M-09-101 FILE NO.: _____ PLOT DATE: _____ PLOT TIME: 12:48PM PLOT SCALE: NONE

WRP-7
MP 113.2 PUMP STATION
MATERIALS TABLE

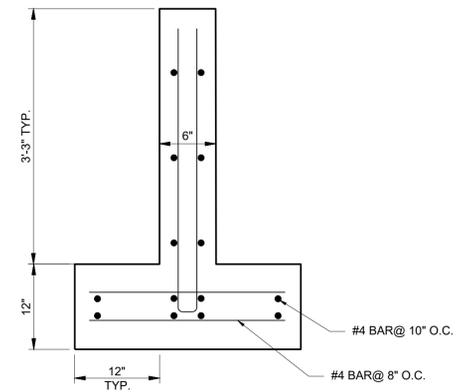


SECTION 1
M-09-101 1/2" = 1'-0"

SYM	DESCRIPTION	REMARKS	QUANTITIES
1	6" DIP TO FUTURE HYDROPNEUMATIC TANK		
2	12" DIP		
3	18" DIP		
4	18" BLIND FLANGE.		
5	EXISTING 120" RCP WET WELL	ASTM C361, AWWA C302, REMAIN IN PLACE	
6	6" 90 DEG. BEND, FLG.		
7	18" 45 DEG. BEND, FLG.		
8	12" X 12" X 6" TEE		
9	18" X 18" X 12" TEE		
10	VERTICAL TURBINE PUMP & MOTOR	15" FLOWSERVE PUMP, 3800 GPM, TDH = 63', 75 HP, 1775 RPM 12" DISCHARGE, ANTI VORTEX STRAINER	3
11	12" GATE VALVE RESILIENT WEDGE	MUELLER, MODEL NO. 2362, FLANGED, OR APPROVED EQUAL	3
12	12" CHECK VALVE	VAL MATIC SURGEBUSTER, SILENT NON-SLAM FLANGED, OR APPROVED EQUAL	3
13	18" IN LINE FLOW METER W/ TRANSMITTER	MCCROMETER ULTRA MAG MODEL UM-06, FLANGE	1
14	3/4" COUPLING WITH PLUG	FOR 18	1
15	6" FLG. G.V.		1
16	3" AIR AND VACUUM RELIEF VALVE	ARI-D-025 ON 3" STEEL NIPPLE	1
17	12" EXPANSION JOINT	ROMAC 501 OR EQUAL	3
18	0-100 PSI PRESSURE GAUGE		
19	18" FLANGE ADAPTER	FLG. MJ-RJ	1
20	EXISTING 18" PVC	CONNECT TO EXIST. 18" PVC, REMAIN IN PLACE	
21	PIPE SUPPORT	CONCRETE PIPE SUPPORT DETAIL, PIPE SIZE AS SHOWN	3
22	THRUST BLOCKS	CVWD STANDARDS	2
23	PROPOSED 30" X 30" STEEL PLATE 1" THICK	ATTACH TO EXIST. WF 6 X12 I-BEAN	3
24	EXISTING STEEL I-BEAMS 6" X 12" 3/8" THICK	REMAIN IN PLACE	3
25	27.5" O.D. MOTOR BASE		
26	12" FLANGE		
27	SCREEN - 1 3/4" DEPTH BORDEN W/DF TYPE, 90 LB. MAX. PER GRATE (OR APPROVED EQUAL)		



SECTION 2
M-09-101 1/2" = 1'-0"

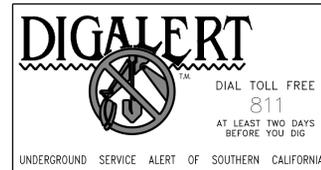


SECTION 21
SCALE: 1" = 1'-0"

CONSTRUCTION NOTE:

CONTRACTOR TO REMOVE EXISTING PUMPS (3), VALVES, FITTINGS, FLOWMETER, AND STEEL MANIFOLD FROM WET WELL TO EXISTING 18" PVC TIE-IN

C.V.W.D. DRAWING APPROVAL		DATE
Checked: _____	PROJECT ENGINEER	—
Recommended: _____	DIRECTOR OF ENGINEERING	DWG. No. —
REVISIONS:	DATE	APPR.



SYM	REVISIONS	DATE	BY

SCALE	NONE
FIELD BOOK	—
DESIGN	—
DRAWN	TVL
CHECKED	—
APPROVED BY _____	REGISTERED ENGINEER No. _____ DATE _____

SCALE	NONE
FIELD BOOK	—
DESIGN	—
DRAWN	TVL
CHECKED	—

COACHELLA VALLEY WATER DISTRICT
IN THE CITY OF PALM DESERT, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA
**WATER RECLAMATION PLANT No.4
NPW IMPROVEMENTS**

MP 113.2 PUMP STATION
SECTION AND DETAIL
LOCATED WITHIN SECTION 15, TOWNSHIP 5 SOUTH, RANGE 6 EAST, SBM

DRAWING
M-09-301
XX OF XX SHEETS
DRAWING No. —

DWG. NO.: 40638-M-09-301 FILE NO.: — PLOT DATE: — PLOT TIME: 12:48PM PLOT SCALE: NONE

2.5 Regulatory Requirements, Permits, and Approvals

The Proposed Project would require the following approvals and regulatory permits:

- Cross-cutting Federal Authorities (U.S. Environmental Protection Agency [USEPA] and State Water Resources Control Board's [SWRCB])

USEPA is identified because CVWD is seeking funding for the Proposed Project under the SWRCB's Clean Water State Revolving Fund (CWSRF) Program, which is partially funded through the EPA. Because of the federal nexus with the EPA, projects seeking funding through the CWSRF Program are subject to federal laws and regulations. The Project's compliance with federal regulations is discussed in Section 5.0 of this document.

2.6 Consultation With California Native American Tribe(s)

CVWD has notified the following California Native American tribes traditionally and culturally affiliated with the geographic area of the Proposed Project:

- Agua Caliente Band of Cahuilla Indians
- Augustine Band of Cahuilla Mission Indians
- Bureau of Indian Affairs – Pacific Region
- Bureau of Indian Affairs – Southern California Agency
- Bureau of Indian Affairs – Palm Springs Agency
- Cabazon Band of Mission Indians
- Cahuilla Band of Indians
- Los Coyotes Band of Cahuilla and Cupeño Indians
- Morongo Band of Mission Indians
- Ramona Band of Cahuilla
- Soboba Band of Luiseno Indians
- Torres-Martinez Desert Cahuilla Indians
- Twenty-Nine Palms Band of Mission Indians

The Augustine Band of Cahuilla Indians responded to the notification letter stating that they are unaware of specific cultural resources that may be affected by the Proposed Project, but would like to be notified should any cultural resources be discovered during Project development.

The Agua Caliente Band of Cahuilla Indians (ACBCI) responded to the notification letter stating the Project Area is not located within the boundaries of the ACBCI reservation but is within the Tribe's Traditional Use Area. The ACBCI Tribal Historic Preservation Office requests formal government-to-government

consultation under AB 52 in addition to copies of any cultural resource documentation, cultural resources inventory, record search results, and the presence of an approved Agua Caliente Native American Cultural Resource Monitor during ground disturbing activities.

The Twenty-Nine Palms Band of Mission Indians responded to the notification letter stating the Tribal Historic Preservation Office is unaware of any cultural or Tribal Cultural Resources in the Project Area that pertains to the Tribe. The Tribe recommends contacting Tribes with cultural affiliation to the Project Area if culturally-affiliated tribal material is discovered during construction.

Section 4.18 of this IS/MND provides a summary of the consultation process. ~~AB 52 consultation is ongoing as of the release of this Draft IS/MND (August 2023). The results of the AB 52 consultation process will be included as part of the Final IS/MND.~~

2.7 Comments Received on the Public Draft Initial Study

The Draft IS/MND was circulated for a period of 30 days from August 21, 2023 through September 19, 2023. The Draft IS/MND was available for public review online at www.cvwd.org.

CVWD received one comment letter on the Draft IS/MND from the California Department of Fish and Wildlife (CDFW), dated September 19, 2023. The CDFW comment letter and CVWD's responses are provided in Appendix H. The comment letter provided comments related to mitigating the Project's direct and indirect impacts on fish and wildlife resources. The responses to each comment identify the number of the comment to which they are responding. In response to CDFW's comments on the Draft IS/MND, information was added to Section 4.4, Biological Resources, to clarify the mitigation measures for nesting birds, bats, and burrowing owl. Changes to the Draft IS/MND that were made in response to comments on the document are shown here in ~~striketrough~~ and underline. None of the comments received on the Draft IS/MND identified a potential significant impact, an increase in the severity of an identified less than significant impact, or the need for additional mitigation measures.

3.0 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED AND DETERMINATION

3.1 Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by the Project, involving at least one impact that is a *Potentially Significant Impact*, as indicated by the checklist on the following pages. With adherence to the mitigation program identified within this IS/MND, the potentially significant impacts would be reduced or minimized to less than significant.

- | | | |
|---|--|---|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Hazards/Hazardous Materials | <input type="checkbox"/> Recreation |
| <input type="checkbox"/> Agriculture and Forestry Resources | <input type="checkbox"/> Hydrology/Water Quality | <input type="checkbox"/> Transportation |
| <input type="checkbox"/> Air Quality | <input type="checkbox"/> Land Use and Planning | <input checked="" type="checkbox"/> Tribal Cultural Resources |
| <input checked="" type="checkbox"/> Biological Resources | <input type="checkbox"/> Mineral Resources | <input type="checkbox"/> Utilities and Service Systems |
| <input checked="" type="checkbox"/> Cultural Resources | <input type="checkbox"/> Noise | <input type="checkbox"/> Wildfire |
| <input type="checkbox"/> Energy | <input type="checkbox"/> Paleontological Resources | <input type="checkbox"/> Mandatory Findings of Significance |
| <input checked="" type="checkbox"/> Geology and Soils | <input type="checkbox"/> Population and Housing | |
| <input type="checkbox"/> Greenhouse Gas Emissions | <input type="checkbox"/> Public Services | |

Determination

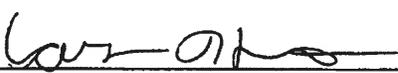
On the basis of this initial evaluation:

- I find that the Project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- I find that although the Project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the Project have been made by or agreed to by the Project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- I find that the Project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- I find that the Project MAY have a “potentially significant impact” or “potentially significant unless mitigated” impact on the environment but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- I find that although the Project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the Project, nothing further is required.

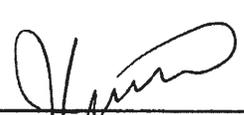
~~Draft Final~~ Initial Study and Mitigated Negative Declaration

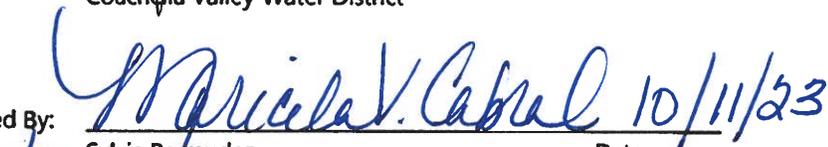
Prepared by:  9/28/2023
Freddie Olmos Date
Task Lead/Principal Environmental Planner
ECORP Consulting, Inc.

Reviewed by:  9/28/2023
Charlie McKinley Date
Project Engineer
Black & Veatch

Reviewed by:  09/28/23
Carlos Huerta Date
Environmental Specialist
Coachella Valley Water District

Reviewed by:  09/28/23
William Patterson Date
Environmental Supervisor
Coachella Valley Water District

Submitted by:  09/28/23
Joanne Le Date
Director of Environmental Services
Coachella Valley Water District

Approved By:  10/11/23
Sylvia Bermudez Date
Clerk of the Board
Coachella Valley Water District

3.2 Evaluation of Environmental Impacts

CVWD has defined the column headings in the IS checklist as follows:

- A) "Potentially Significant Impact" is appropriate if there is substantial evidence that the Project's effect may be significant even with the incorporation of mitigation measures identified in the 2020 SMP PEIR. If there are one or more "Potentially Significant Impacts" a Project EIR will be prepared.
- B) "Project Impact Adequately Addressed in SMP PEIR" applies where the potential impacts of the Proposed Project were adequately addressed in the 2020 SMP PEIR and the mitigation measures identified in the PEIR will mitigate any impacts of the Proposed Project to the extent feasible. All applicable mitigation measures identified in the PEIR are incorporated into the Project as proposed. The impact analysis in this document summarizes and cross references the relevant analysis in the 2020 SMP PEIR.
- C) "Less than Significant with Mitigation Incorporated" applies where the incorporation of project-specific mitigation measures will reduce an effect from "Potentially Significant Impact" to a "Less than Significant Impact." All project-level mitigation measures must be described, including a brief explanation of how the measures reduce the effect to a less than significant level.
- D) "Less than Significant Impact" applies where the Proposed Project would not result in any significant effects. The effects may or may not have been discussed in the 2020 SMP PEIR. The Project impact is less than significant without the incorporation of the PEIR or project-level mitigation.
- E) "No Impact" applies where the Proposed Project would not result in any impact in the category or the category does not apply. "No Impact" answers need to be adequately supported by the information source cited, which show that the impact does not apply to the projects like the one involved. A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards.

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4.0 ENVIRONMENTAL CHECKLIST AND DISCUSSION

4.1 Aesthetics

The analysis of aesthetics is tiered from the 2020 SMP PEIR and was addressed in Section 2.4, CEQA Overview, of that document. The 2020 SMP PEIR found impacts to aesthetics for all Master Plan projects not to be significant because proposed improvements to existing sanitation facilities would not significantly affect scenic resources, as they are already a part of the existing landscape. The proposed pipelines would be located underground and predominantly within the right-of-way (ROW) of existing roadways and would not be visible. Lift stations would be sited adjacent to pipelines and do not include tall structures that could obstruct scenic resources. Aesthetic impacts were found not to be significant and not discussed further in the PEIR (CVWD 2022).

Analysis in this section is supplemented by information specific to the Project's environmental setting.

4.1.1 Environmental Setting

The City of Indio (City) is located in the Coachella Valley which is bounded on the west by the San Jacinto Mountains and the Santa Rosa Mountains and on the north and east by the Little San Bernardino Mountains. At the southern end of the Coachella Valley is the Salton Sea. The City has an urban pattern that includes established residential areas and commercial corridors in the historic part of the City and suburban housing and commercial uses along the edge of the City (City of Indio 2019a).

4.1.1.1 Regional Setting

State Scenic Highways

The California Scenic Highway Program protects and enhances the scenic beauty of California's highways and adjacent corridors. The California Department of Transportation (Caltrans) can designate a highway as scenic based on how much natural beauty can be seen by users of the highway, the quality of the scenic landscape, and if development impacts the enjoyment of the view.

A portion of Highway 74, which travels from the western boundary of San Bernardino National Forest to Highway 111 in the City of Palm Desert is an officially designated state scenic highway. The officially designated portion of Highway 74 is located approximately 8.26 miles southwest of the Project Area. A portion of Highway 111, which travels from Highway 74 in the City of Palm Desert to Interstate 19 (I-10) near Whitewater is an eligible state scenic highway (Caltrans 2023). This portion is located approximately 8.26 miles southwest of the Project Area.

General Plan

The City's General Plan notes open spaces in the surrounding area include Indio Hills and Whitewater River. The northern portion of the planning area includes desert and hillside landscapes (City of Indio 2019a).

4.1.1.2 Visual Character of the Project Area

The Project Area includes existing CVWD facilities as well as sections of existing roadways (Jefferson Street and Young Way) and private property. Existing buildings and vegetation in the surrounding area partially block views of the mountains. Distant mountain views to the south include the Santa Rosa Mountains and views to the north and east include the Little San Bernardino Mountains.

4.1.2 Aesthetics Environmental Checklist and Discussion

Except as provided in Public Resources Code Section 21099, would the Project:	Potentially Significant Impact	Project Impact Adequately Addressed in SMP PEIR	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Less than Significant Impact.

As discussed in Section 2.4 of the 2020 SMP PEIR, proposed improvements to existing sanitation facilities would not significantly affect scenic resources as they are already a part of the existing landscape. Additionally, the Project’s proposed NPW pipeline would be within the ROW of Jefferson Street and on Young’s Farmland private property. The pipeline would be located underground and not visible. Therefore, impacts of the Proposed Project on scenic vistas would be less than significant, consistent with the findings of the 2020 SMP PEIR.

Except as provided in Public Resources Code Section 21099, would the Project:	Potentially Significant Impact	Project Impact Adequately Addressed in SMP PEIR	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No Impact.

Proposed WRP 7 and MP 113.2 pump station improvements are located within existing CVWD facilities and would not cause damage to any scenic resources including trees, rock outcroppings, and historic buildings, including those within a state scenic highway. Implementation of the Young’s Farmland NPW pipeline may require the removal and relocation of existing palm trees on Young’s Farmland, which is private property. However, there are no officially designated state scenic highways in the vicinity of the Project Area (Caltrans 2023, City of Indio 2019a). A portion of Highway 74 is a designated state scenic highway and a portion of Highway 111 is an eligible state scenic highway; however, both are located approximately 8.26 miles southwest of the Project Area. No impact would occur.

Except as provided in Public Resources Code Section 21099, would the Project:	Potentially Significant Impact	Project Impact Adequately Addressed in SMP PEIR	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the Project is in an urbanized area, would the Project conflict with applicable zoning and other regulations governing scenic quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No Impact.

The Project Area is in an urbanized area surrounded by single-family homes, golf courses, farm plots, and undeveloped land. The Project Area is developed and includes water facilities, farmland, and a roadway. The Project proposes upgrades to existing CVWD facilities and construction of an approximately 2,500 linear foot pipeline connection, which are compatible with the existing zoning designations. No impact would occur.

Except as provided in Public Resources Code Section 21099, would the Project:	Potentially Significant Impact	Project Impact Adequately Addressed in SMP PEIR	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
d) Would the Project create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No Impact.

The proposed NPW pipeline would be located underground and therefore would not be visible. The proposed improvements to CVWD facilities include construction of a tertiary filters canopy, UV disinfection building, chemical storage canopy, MP 113.2 canopy, and an electrical building. The tertiary filters canopy would be located within an existing building and would not create a new source of substantial light or glare. The proposed UV disinfection building, chemical storage canopy, MP 113.2 canopy, and electrical building would be constructed from prefinished metal panels, which would not be shiny or highly reflective. These proposed structures would be consistent with existing structures onsite and would not create a new source of substantial light or glare that would adversely affect day or nighttime views in the area.

4.1.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.2 Agriculture and Forestry Resources

The analysis of agriculture and forestry resources is tiered from the 2020 SMP PEIR and was addressed in Section 4.7, Land Use, Planning, and Agriculture, of that document. The PEIR determined the WRP 7 site is located on land designated as Urban and Built-up Land and bordered to the north and east by Urban and Built-up Land and Other Land, to the south by Prime Farmland, and to the west by Urban and Built-up Land and Prime Farmland. Potentially affected farmland within the impact footprint of the Master Plan projects does not represent a permanent conversion of agricultural land to non-agricultural uses. Agricultural operations on adjacent fields would continue. The PEIR determined that the environmental effects on forestry resources are not significant and were not further analyzed (CVWD 2022).

Analysis in this section is supplemented by information specific to the Project's environmental setting.

4.2.1 Environmental Setting

"Forest land" as defined by PRC Section 12220(g) is "...land that can support 10-percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits."

"Timberland" as defined by PRC Section 4526 means "...land, other than land owned by the federal government and land designated by the board as experimental forest land, which is available for, and capable of, growing a crop of trees of a commercial species used to produce lumber and other forest products, including Christmas trees. Commercial species shall be determined by the board on a district basis."

"Timberland zoned Timberland Production" is defined by PRC Section 51104(g) as "...an area which has been zoned pursuant to Section 51112 or 51113 and is devoted to and used for growing and harvesting timber, or for growing and harvesting timber and compatible uses, as defined in subdivision h."

The City was built on agriculture, distribution of goods and services, light manufacturing, and tourism. However, commercial activity in the Coachella Valley has shifted from agriculture and military activity to tourism and recreation. As of 2019, 8 percent of the planning area and 17 percent of the developed areas is used for agriculture. The City utilizes urban agriculture which integrates small-scale agricultural activities into the City's neighborhoods to provide locally-grown food while reducing the environmental impact of transporting food long distances to reach the consumer. Agriculture is an allowed land use in Desert Estates and Desert Estates Transition neighborhoods (City of Indio 2019a).

The California Department of Conservation's (DOC) Farmland Mapping and Monitoring Program (FMMP), compiles important farmland maps pursuant to the provisions of Section 65570 of the California Government Code. According to the FMMP, the Project Area is located on land designated as Urban and Built-Up land (occupied by structures with a building density of at least 1 unit to 1.5 acres, or approximately 6 structures to a 10-acre parcel) (DOC 2023).

4.2.2 Agriculture and Forestry Resources Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Project Impact Adequately Addressed in SMP PEIR	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No Impact.

The Project Area is located on land designated as Urban and Built-Up Land and Other Land. The Project Area is bordered to the north, south, and east by Urban and Built-Up Land, Farmland of Local Importance, Prime Farmland, and Other Land and to the east by Other Land and Urban and Built-Up Land (DOC 2023). The Project Area does not contain land designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. Therefore, no conversion of such farmlands to non-agricultural use would occur. No impact would occur and no mitigation is required.

Would the Project:	Potentially Significant Impact	Project Impact Adequately Addressed in SMP PEIR	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Project Impact Adequately Addressed in SMP PEIR.

The analysis of Impact AG-2 in Section 4.7, Land Use, Planning, and Agriculture, of the 2020 SMP PEIR concluded that the Master Plan would not conflict with existing zoning for agricultural use within the cities of Desert Hot Springs, Cathedral City, Rancho Mirage, Palm Desert, Indian Wells, La Quinta, and Indio because proposed facilities and improvements to existing facilities are generally located within the ROW of existing streets or within lands zoned for urban, industrial, commercial, public, open space, or residential uses. The Project Area is located in the City and would not conflict with existing zoning for agricultural use or a Williamson Act contract. The 2020 SMP PEIR notes the location of parcels under Williamson Act contracts within the CVWD service area and determined that no project facilities in the City are within active Williamson Act contract lands. Figure 4.7-2 shows parcels under Williamson Act contracts north of the WRP 7 facility, however the Project Area is not within active Williamson Act contract lands (CVWD 2022). Implementation of the Proposed Project would not conflict with zoning for agricultural use or a Williamson Act contract. Project impacts were adequately addressed in the 2020 SMP PEIR.

Would the Project:	Potentially Significant Impact	Project Impact Adequately Addressed in SMP PEIR	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No Impact.

Zoning in the Project Area is designated as PI – Public and Institutional, ROW, OS – Parks and Open Space, DET-3 – Desert Estates Transition-3, and Golf Course (City of Indio 2019a; Ludwig Engineering et al. 2004). The Project Area is not zoned for forest land, timberland, or timberland zoned Timberland Production (DOC 2023). No impact would occur and no mitigation is required.

Would the Project:	Potentially Significant Impact	Project Impact Adequately Addressed in SMP PEIR	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No Impact.

The Project Area is not zoned for forest land, timberland, or timberland production (DOC 2023) and the Project Area does not contain any forest land. Therefore, the Proposed Project would not result in the loss of forest land or conversion of forest land to non-forest use. No impact would occur and no mitigation is required.

Would the Project:	Potentially Significant Impact	Project Impact Adequately Addressed in SMP PEIR	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
e) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No Impact.

The Project Area includes existing CVWD facilities, public ROW, and private property and is not currently used for agriculture or forest land. Development of the Proposed Project would not result in the conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use. No impact would occur and no mitigation is required.

4.2.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.3 Air Quality

The analysis of air quality is tiered from the 2020 SMP PEIR and was addressed in Section 4.1, Air Quality, of that document. This assessment was prepared using methods and assumptions recommended in the rules and regulations of the South Coast Air Quality Management District (SCAQMD) and the City. Regional and local existing conditions are presented, along with pertinent pollutant emissions standards and regulations. The purpose of this assessment is to estimate criteria air pollutants attributable to the Proposed Project and determine the level of impact it would have on the environment.

4.3.1 Environmental Setting

The Proposed Project is located within the City of Indio, in the eastern portion of Riverside County. The California Air Resource Board (CARB) has divided California into regional air basins according to topographic features. The Project Area is located in the Salton Sea Air Basin (SSAB). The SSAB includes the Imperial Valley and the central part of Riverside County, including the Coachella Valley. The province is characterized by the large-scale sinking and warming of air within the semi-permanent subtropical high-pressure center over the Pacific Ocean.

Both the USEPA and CARB have established ambient air quality standards for common pollutants. These ambient air quality standards are levels of contaminants representing safe levels that avoid specific adverse health effects associated with each pollutant. The ambient air quality standards cover what are called "criteria" pollutants because the health and other effects of each pollutant are described in criteria documents. The six criteria pollutants are ozone (O₃), carbon monoxide (CO), particulate matter (PM), nitrogen oxides (NO_x), sulfur dioxide (SO₂), and lead. Areas that meet ambient air quality standards are classified as attainment areas, while areas that do not meet these standards are classified as nonattainment areas. The portion of Riverside County encompassing the City of Indio and the Project Area is designated as a nonattainment area for the federal O₃ and coarse particulate matter (PM₁₀) standards and is also a nonattainment area for the state standards for O₃ and PM₁₀ (CARB 2022).

The local air quality regulating authority in Riverside County is the SCAQMD. The SCAQMD's primary responsibility is ensuring that the National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) are attained and maintained in the Riverside County portion of the SSAB. The SCAQMD is also responsible for adopting and enforcing rules and regulations concerning air pollutant sources, issuing permits for stationary sources of air pollutants, inspecting stationary sources of air pollutants, responding to citizen complaints, monitoring ambient air quality and meteorological conditions, awarding grants to reduce motor vehicle emissions, and conducting public education

campaigns, as well as many other activities. All projects are subject to SCAQMD rules and regulations in effect at the time of construction.

The following is a list of noteworthy SCAQMD rules that are required of construction activities associated with the Proposed Project:

- **Rule 402 (Nuisance)** – This rule prohibits the discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health, or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property. This rule does not apply to odors emanating from agricultural operations necessary for the growing of crops or the raising of fowl or animals.
- **Rule 403 (Fugitive Dust)** – This rule requires fugitive dust sources to implement best available control measures for all sources, and all forms of visible PM are prohibited from crossing any property line. This rule is intended to reduce PM₁₀ emissions from any transportation, handling, construction, or storage activity that has the potential to generate fugitive dust. PM₁₀ suppression techniques are summarized below.
 - a) Portions of a construction site to remain inactive longer than a period of three months will be seeded and watered until grass cover is grown or otherwise stabilized.
 - b) All onsite roads will be paved as soon as feasible or watered periodically or chemically stabilized.
 - c) All material transported offsite will be either sufficiently watered or securely covered to prevent excessive amounts of dust.
 - d) The area disturbed by clearing, grading, earthmoving, or excavation operations will be minimized at all times.
 - e) Where vehicles leave a construction site and enter adjacent public streets, the streets will be swept daily or washed down at the end of the workday to remove soil tracked onto the paved surface.
- **Rule 1113 (Architectural Coatings)** – This rule requires manufacturers, distributors, and end-users of architectural and industrial maintenance coatings to reduce Reactive Organic Gas (ROG) emissions from the use of these coatings, primarily by placing limits on the ROG content of various coating categories.
- **Rule 1401 (New Source Review of Toxic Air Contaminants)** – This rule requires new source review of any new, relocated, or modified permit units that emit toxic air contaminants (TACs). The rule establishes allowable risks for permit units requiring permits pursuant to Rules 201 and 203 discussed above.

4.3.2 Air Quality Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Project Impact Adequately Addressed in SMP PEIR	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No Impact.

As part of its enforcement responsibilities, the USEPA requires each state with nonattainment areas to prepare and submit a State Implementation Plan (SIP) that demonstrates the means to attain the federal standards. The SIP must integrate federal, state, and local plan components and regulations to identify specific measures to reduce pollution in nonattainment areas, using a combination of performance standards and market-based programs. Similarly, under state law, the California Clean Air Act (CAA) requires an air quality attainment plan to be prepared for areas designated as nonattainment with regard to the NAAQS and CAAQS. Air quality attainment plans outline emissions limits and control measures to achieve and maintain these standards by the earliest practical date.

As previously mentioned, the Project Area is located within the SSAB, which is under the jurisdiction of the SCAQMD. The SCAQMD is required, pursuant to the federal CAA, to reduce emissions of criteria pollutants for which the SSAB is in nonattainment. In order to reduce such emissions, the SCAQMD drafted the 2016 Air Quality Management Plan (AQMP) (it is noted that the SCAQMD has recently adopted the 2022 AQMP, which is awaiting final approval by the USEPA). The 2016 AQMP establishes a program of rules and regulations directed at reducing air pollutant emissions and achieving state (California) and national air quality standards. The 2016 AQMP is a regional and multi-agency effort including the SCAQMD, CARB, Southern California Association of Governments (SCAG), and the USEPA. The plan’s pollutant control strategies are based on the latest scientific and technical information and planning assumptions, including SCAG’s latest Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), updated emission inventory methodologies for various source categories, and SCAG’s latest growth forecasts (SCAG’s latest growth forecasts were defined in consultation with local governments and with reference to local general plans). The Proposed Project is subject to the SCAQMD’s AQMP.

According to the SCAQMD, in order to determine consistency with SCAQMD’s air quality planning two main criteria must be addressed.

Criterion 1:

With respect to the first criterion, SCAQMD methodologies require that an air quality analysis for a project include forecasts of project emissions in relation to contributing to air quality violations and delay of attainment.

- a) *Would the project result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new air quality violations?*

As shown in Table 4.3-1, 4.3-3, and 4.3-4 below, the Proposed Project would result in emissions that would be below the SCAQMD regional and localized thresholds during both construction and operation. Therefore, the Proposed Project would not result in an increase in the frequency or severity of existing air quality violations and would not have the potential to cause or affect a violation of the ambient air quality standards.

- b) *Would the project delay timely attainment of air quality standards or the interim emissions reductions specified in the AQMP?*

As shown in Table 4.3-1 and 4.3-4 below, the Proposed Project would be below the SCAQMD regional thresholds for construction and operations. Because the Proposed Project would result in less than significant regional emission impacts, it would not delay the timely attainment of air quality standards or AQMP emissions reductions.

Criterion 2:

With respect to the second criterion for determining consistency with SCAQMD and SCAG air quality policies, it is important to recognize that air quality planning within the SSAB focuses on attainment of ambient air quality standards at the earliest feasible date. Projections for achieving air quality goals are based on assumptions regarding population, housing, and growth trends. Thus, the SCAQMD's second criterion for determining Project consistency focuses on whether or not the Proposed Project exceeds the assumptions utilized in preparing the forecasts presented its air quality planning documents. Determining whether or not a project exceeds the assumptions reflected in the 2016 AQMP involves the evaluation of the three criteria outlined below. The following discussion provides an analysis of each of these criteria.

- a) *Would the project be consistent with the population, housing, and employment growth projections utilized in the preparation of the 2016 AQMP?*

A project is consistent with regional air quality planning efforts in part if it is consistent with the population, housing, and employment assumptions that were used in the development of the SCAQMD air quality plans. Generally, three sources of data form the basis for the projections of air pollutant emissions in the County of Riverside. Specifically, SCAG's Growth Management Chapter of the Regional Comprehensive Plan and Guide (RCPG) provides regional population forecasts for the region and SCAG's RTP/SCS provides socioeconomic forecast projections of regional population growth. The City's General Plan is referenced by SCAG in order to assist forecasting future growth in the city.

The Proposed Project is consistent with the land use designation and development density presented in the City's 2040 General Plan. The Project Area currently has a General Plan land use designation of Public and Institutional. This designation allows for areas for public, educational, and institutional uses (City of Indio 2019a). The Project is proposing several improvements to existing tertiary treatment plant processes and an existing canal pump station, with overall treated water effluent capacity from the facility remaining the same. All proposed WRP 7 and MP 113.2 pump station improvements are within existing CVWD facility sites and would not expand the number of necessary employees. The Proposed Project does not involve the development of new housing or employment centers. As such, the Proposed Project would not contribute to an increase in population, housing, or employment growth. Therefore, the Proposed

Project would be considered consistent with the population, housing, and employment growth projections utilized in the preparation of SCAQMD's air quality plans. As a result, the Proposed Project would not conflict with the land use assumptions or exceed the population or job growth projections used by SCAQMD to develop the 2016 AQMP.

b) Would the project implement all feasible air quality mitigation measures?

To further reduce emissions, the Proposed Project would be required to comply with emission reduction measures promulgated by the SCAQMD, such as SCAQMD Rules 201, 402, 403, and 1113. SCAQMD Rule 402 prohibits the discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health, or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property. SCAQMD Rule 403 requires fugitive dust sources to implement Best Available Control Measures for all sources, and all forms of visible particulate matter are prohibited from crossing any property line. SCAQMD Rule 403 is intended to reduce PM₁₀ emissions from any transportation, handling, construction, or storage activity that has the potential to generate fugitive dust. SCAQMD 1113 requires manufacturers, distributors, and end-users of architectural and industrial maintenance coatings to reduce ROG emissions from the use of these coatings, primarily by placing limits on the ROG content of various coating categories. As such, the Proposed Project meets this consistency criterion.

c) Would the project be consistent with the land use planning strategies set forth by SCAQMD air quality planning efforts?

The AQMP contains air pollutant reduction strategies based on SCAG's latest growth forecasts, and SCAG's growth forecasts were defined in consultation with local governments and with reference to local general plans. The Proposed Project would retrofit and improve the existing WRP 7 tertiary treatment system. This would not increase the Project Area's development density beyond current levels and would not conflict with the development density standards set out by the City's General Plan. The Proposed Project would not exceed the population or job growth projections used by the SCAQMD to develop the AQMP.

In conclusion, the determination of AQMP consistency is primarily concerned with the long-term influence of a Project on air quality. The Proposed Project would not result in a long-term impact on the region's ability to meet state and federal air quality standards. The Proposed Project's long-term influence would also be consistent with the goals and policies of the SCAQMD's 2016 AQMP.

Because of these reasons, there would be no impacts as a result of the Proposed Project.

Would the Project:	Potentially Significant Impact	Project Impact Adequately Addressed in SMP PEIR	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable federal or state ambient air quality standard?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Less than Significant Impact.

By its very nature, air pollution is largely a cumulative impact. No single project is sufficient in size, by itself, to result in nonattainment of ambient air quality standards. Instead, a project’s individual emissions contribute to existing cumulatively significant adverse air quality impacts. If a project’s individual emissions exceed its identified significance thresholds, the project would be cumulatively considerable. Projects that do not exceed significance thresholds would not be considered cumulative considerable.

Air quality impacts were assessed in accordance with methodologies recommended by the SCAQMD. Where criteria air pollutant quantification was required, emissions were modeled using the California Emissions Estimator Model (CalEEMod), version 2022.1. CalEEMod is a statewide land use emissions computer model designed to quantify potential criteria pollutant emissions associated with both construction and operations from a variety of land use projects. Project construction-generated air pollutant emissions are calculated using CalEEMod model defaults for Riverside County. Operational air pollutant emissions are based on the Project dimensions identified in the Project site plans.

Construction Impacts

Regional Construction Significance Analysis

Construction-generated emissions are temporary and short-term but have the potential to represent a significant air quality impact. The basic sources of short-term emissions that will be generated through construction of the Proposed Project would be from grading activities and the from the operation of the construction vehicles (i.e., trenchers, dump trucks). Construction activities such as excavation and grading operations, construction vehicle traffic, and wind blowing over exposed soils would generate exhaust emissions and fugitive PM emissions that affect local air quality at various times during construction. Effects would be variable depending on the weather, soil conditions, the amount of activity taking place, and the nature of dust control efforts. The dry climate of the area during the summer months creates a high potential for dust generation. Construction activities would be subject to SCAQMD Rule 403, which requires taking reasonable precautions to prevent the emissions of fugitive dust, such as using water or chemicals, where possible, for control of dust during the clearing of land and other construction activities.

Construction-generated emissions associated with the Proposed Project were calculated using the CARB-approved CalEEMod computer program, which is designed to model emissions for land use development

projects, based on typical construction requirements. See Appendix A for more information regarding the construction assumptions, including construction equipment and duration, used in this analysis.

Predicted maximum daily construction-generated emissions for the Proposed Project are summarized in Table 4.3-1. Construction-generated emissions are short-term and of temporary duration, lasting only as long as construction activities occur, but would be considered a significant air quality impact if the volume of pollutants generated exceeds the SCAQMD's thresholds of significance.

Table 4.3-1. Construction-Related Emissions (Regional Significance Analysis)						
Construction Year	Pollutant (pounds per day)					
	ROG	NO_x	CO	SO₂	PM₁₀	PM_{2.5}
Construction Year One	3.26	15.90	19.80	0.03	0.91	0.71
<i>SCAQMD Regional Significance Threshold</i>	<i>75</i>	<i>100</i>	<i>550</i>	<i>150</i>	<i>150</i>	<i>55</i>
Exceed SCAQMD Regional Threshold?	No	No	No	No	No	No

Source: CalEEMod version 2022.1. Refer to Appendix A for Model Data Outputs.

Notes: Emissions taken of the season, summer or winter, with the highest outputs. Emission reduction for construction emissions are applied based on the required implementation of SCAQMD Rule 403. The specific Rule 403 measures applied in CalEEMod include the following: sweeping/cleaning adjacent roadway access areas daily; washing equipment tires before leaving the construction site; water exposed surfaces three times daily; and limit speeds on unpaved roads to 25 miles per hour.

PM_{2.5} = fine particulate matter (diameter of 2.5 microns or less)

As shown in Table 4.3-1, emissions generated during Project construction would not exceed the SCAQMD's regional thresholds of significance. Therefore, criteria pollutant emissions generated during Project construction would not result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is nonattainment under an applicable federal or state ambient air quality standard, and no health effects from Project criteria pollutants would occur. As such, the Project would have a less than significant impact.

Localized Construction Significance Analysis

The nearest sensitive receptor to the WRP Project Area is a single-family residence 127 feet to the north of the Project boundary, fronting Avenue 38. The nearest sensitive receptor to the MP 113.2 Pump Station is a single-family residence 353 feet to the northwest, fronting Avenida Vidrio. The nearest sensitive receptors to the area where approximately 2,500 linear feet of NPW pipeline is proposed to be installed are single family residences approximately 52 feet to the west, located on Jefferson Street. In order to identify localized, air toxic-related impacts to sensitive receptors, the SCAQMD recommends addressing Localized Significance Thresholds (LSTs) for construction. LSTs were developed in response to SCAQMD Governing Boards' Environmental Justice Enhancement Initiative (I-4). The SCAQMD provided the *Final Localized Significance Threshold Methodology* (dated June 2003 [revised 2008]) for guidance. The LST methodology assists lead agencies in analyzing localized impacts associated with Project-specific level proposed projects.

For the Proposed Project, the appropriate Source Receptor Area (SRA) for the localized significance thresholds is the Coachella Valley, SRA 30. LSTs apply to CO, NO₂, PM₁₀, and PM_{2.5}. The Proposed Project would disturb approximately 5 acres during construction. The SCAQMD has produced lookup tables for projects that disturb less than or equal to 5 acres daily. Since CalEEMod calculates construction emissions based on the number of equipment hours and the maximum daily soil disturbance activity for each piece of equipment, Table 4.3-2 is used to determine the maximum daily disturbed acreage for comparison to LSTs.

Table 4.3-2. Equipment-Specific Grading Rates					
Construction Phase	Equipment Type	Acres Graded/ Disturbed per 8-Hour Day	Equipment Quantity	Operating Hours per Day	Acres Graded per Day
Linear, Grubbing and Land Clearing	Tractors/Loaders/Backhoes	0.5	1	8	0.5
Linear, Grubbing and Land Clearing Total:					0.5
Linear, Grading, Excavation, and Pipeline Installation	Grader	0.5	1	8	0.5
Linear, Grading, Excavation, Pipeline Installation Total:					0.5
Site Preparation	Grader	0.5	1	8	0.5
	Rubber Tired Dozer	0.5	1	8	0.5
	Tractors/Loaders/Backhoes	0.5	1	8	0.5
Site Preparation Total:					1.5
Grading	Grader	0.5	1	8	0.5
	Rubber Tired Dozer	0.5	1	8	0.5
	Tractors/Loaders/Backhoes	0.5	2	8	1.0
Grading Total:					2.0
Building Construction, Paving, and Painting	Tractors/Loaders/Backhoes	0.5	2	8	1.0
Building Construction, Paving, and Painting Total:					1.0

As shown in Table 4.3-2, the Project would disturb less than one acre in the linear grubbing and land clearing and the linear grading, excavation, and pipeline installation phases. As described, the SCAQMD has produced lookup tables for projects that disturb one, two and five acres. Since the LST's smallest option for disturbance is one acre, the one acre LST threshold is used for analyzing these construction phases. Project implementation could potentially disturb a total maximum of two acres during site

grading. Therefore, the LST threshold value for a two-acre site was employed from the LST lookup tables for this phase. The Proposed Project would disturb just over one acre during the combined building construction, paving, and painting phase and site preparation phases, and therefore, the LST threshold value for a one-acre site was employed. This is a conservative estimate since the analysis will only account for the dispersion of air pollutants over one acre before reaching sensitive receptors, as opposed to accounting for the dispersion of pollutants over the entire Project Area.

LST thresholds are provided for distances to sensitive receptors of 25, 50, 100, 200, and 500 meters. The nearest sensitive receptors to where the linear grubbing, land clearing and the linear grading, excavation, and pipeline installation phases are proposed to occur are single-family residences located to the west of Jefferson Street, approximately 52 feet, or 16 meters, from the site. The nearest sensitive receptor to where the site preparation, grading, and combined building construction, paving, and painting phases are proposed to occur is a single-family residence 127 feet, or 38 meters, to the north of the CVWD WRP 7 boundary. The SCAQMD Methodology explicitly states: "It is possible that a project may have receptors closer than 25 meters. Projects with boundaries located closer than 25 meters to the nearest receptor should use the LSTs for receptors located at 25 meters." LSTs for receptors located at 25 meters were utilized in this analysis. Furthermore, SCAQMD's methodology clearly states that "offsite mobile emissions from a project should not be included in the emissions compared to LSTs." Therefore, for the construction LST analysis, only emissions included in the CalEEMod "onsite" emissions outputs were considered. Table 4.3-3 presents the results of localized emissions from the most polluting activity.

Table 4.3-3. Construction-Related Emissions (Localized Significance Analysis)				
Activity	Onsite Pollutant (pounds per day)			
	NO_x	CO	PM₁₀	PM_{2.5}
1.0 Acre Threshold				
Linear, Grubbing and Land Clearing	1.90	2.69	0.08	0.07
Linear, Grading, Excavation, and Pipeline Installation	6.14	7.48	0.30	0.27
Site Preparation	13.70	12.90	0.65	0.59
Building Construction, Paving, and Painting	15.25	17.78	0.63	0.58
<i>SCAQMD Localized Significance Threshold (1.0 Acres)</i>	<i>132</i>	<i>878</i>	<i>4</i>	<i>3</i>
Exceed SCAQMD Localized Threshold?	No	No	No	No
2.0 Acre Threshold				
Grading	15.90	15.40	0.74	0.68
<i>SCAQMD Localized Significance Threshold (2.0 Acres)</i>	<i>191</i>	<i>1,299</i>	<i>7</i>	<i>5</i>
Exceed SCAQMD Localized Threshold?	No	No	No	No

Source: CalEEMod version 2022.1. Refer to Appendix A for Model Data Outputs.

Notes: Emissions taken from the season with the highest outputs. Emission reduction/credits for construction emissions are applied based on the required implementation of SCAQMD Rule 403. The specific Rule 403 measures applied in CalEEMod include the following: sweeping/cleaning adjacent roadway access areas daily; washing equipment tires before leaving the construction site; water exposed surfaces three times daily; and limit speeds on unpaved roads to 25 miles per hour.

Table 4.3-3 shows that the emissions of these pollutants during construction would not result in significant concentrations of pollutants at nearby sensitive receptors. Therefore, significant impacts would not occur concerning LSTs during construction activities. LSTs were developed in response to SCAQMD Governing Boards' Environmental Justice Enhancement Initiative. The SCAQMD Environmental Justice Enhancement Initiative program seeks to ensure that everyone has the right to equal protection from air pollution. Therefore, impacts would be less than significant concerning LSTs during construction activities.

Long-Term Operational Impacts

Regional Operational Significance Analysis

Implementation of the Proposed Project would result in long-term operational emissions of criteria air pollutants such as PM₁₀, PM_{2.5}, CO, and SO₂ as well as O₃ precursors such as ROG_s and NO_x. As previously

described, operational air pollutant emissions were based on the Project dimensions identified in the Project site plans. Long-term operational emissions attributable to the Project are identified in Table 4.3-4 and compared to the operational significance thresholds promulgated by the SCAQMD.

Table 4.3-4. Operational-Related Emissions (Regional Significance Analysis)						
Emission Source	Pollutant (pounds per day)					
	ROG	NO_x	CO	SO₂	PM₁₀	PM_{2.5}
Summer Emissions						
Mobile	0.29	0.28	2.77	0.01	0.20	0.04
Area	0.44	0.01	0.61	0.00	0.00	0.00
Energy	0.01	0.12	0.10	0.00	0.01	0.01
Total:	0.74	0.41	3.48	0.01	0.21	0.05
<i>SCAQMD Regional Significance Threshold</i>	<i>55</i>	<i>55</i>	<i>550</i>	<i>150</i>	<i>150</i>	<i>55</i>
Exceed SCAQMD Regional Threshold?	No	No	No	No	No	No
Winter Emissions						
Mobile	0.23	0.30	1.88	0.01	0.20	0.04
Area	0.34	0.00	0.00	0.00	0.00	0.00
Energy	0.01	0.12	0.10	0.00	0.01	0.01
Total:	0.58	0.42	1.98	0.01	0.21	0.05
<i>SCAQMD Regional Significance Threshold</i>	<i>55</i>	<i>55</i>	<i>550</i>	<i>150</i>	<i>150</i>	<i>55</i>
Exceed SCAQMD Regional Threshold?	No	No	No	No	No	No

Source: CalEEMod version 2022.1. Refer to Appendix A for Model Data Outputs.

Notes: Emission projections predominately based on CalEEMod model defaults for Riverside County.

As shown in Table 4.3-4, the Project's emissions would not exceed any SCAQMD thresholds for any criteria air pollutants during operation.

The Riverside County portion of the SSAB is listed as a nonattainment area for the federal O₃ and PM₁₀ standards and is also a nonattainment area for the state standards for O₃ and PM₁₀ (CARB 2022). O₃ is a health threat to persons who already suffer from respiratory diseases and can cause severe ear, nose and throat irritation and increases susceptibility to respiratory infections. PM can adversely affect the human respiratory system. As shown in Table 4.3-4, the Proposed Project would result in increased emissions of

the O₃ precursor pollutants ROG and NO_x, PM₁₀, and PM_{2.5}, however, the correlation between a project's emissions and increases in nonattainment days, or frequency or severity of potentially related illnesses, cannot be precisely quantified. The overall strategy for reducing air pollution and related health effects in the SCAQMD is contained in the SCAQMD 2016 AQMP. The AQMP provides control measures that reduce emissions to attain federal ambient air quality standards by their applicable deadlines such as the application of available cleaner technologies, best management practices, incentive programs, as well as development and implementation of zero and near-zero technologies and control methods. The CEQA thresholds of significance established by the SCAQMD are designed to meet the objectives of the AQMP and in doing so achieve attainment status with state and federal standards. As noted above, the Proposed Project would increase the emission of these pollutants, but would not exceed the thresholds of significance established by the SCAQMD for purposes of reducing air pollution and its deleterious health effects.

Localized Operational Significance Analysis

According to the SCAQMD localized significance threshold methodology, LSTs would apply to the operational phase of a proposed project only if the project includes stationary sources (e.g., smokestacks) or attracts heavy-duty trucks that may spend long periods queuing and idling at the site (e.g., warehouse or transfer facilities). The Proposed Project does not include such uses. Therefore, in the case of the Proposed Project, the operational LST protocol is not applied.

Because of these reasons, these impacts of the Proposed Project are less than significant.

Would the Project:	Potentially Significant Impact	Project Impact Adequately Addressed in SMP PEIR	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
c) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Less than Significant Impact.

As previously described, sensitive receptors are defined as facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples of these sensitive receptors are residences, schools, hospitals, and daycare centers. CARB has identified the following groups of individuals as the most likely to be affected by air pollution: the elderly over age 65, children under age 14, athletes, and persons with cardiovascular and chronic respiratory diseases such as asthma, emphysema, and bronchitis. The nearest sensitive receptor to the WRP 7 Project Area is a single-family residence 127 feet to the to the north of the Project boundary, fronting Avenue 38. The nearest sensitive receptor to the MP 113.2 Pump Station is a single-family residence 353 feet to the northwest, fronting Avenida Vidrio. The nearest sensitive receptors to the area where approximately 2,500 linear feet of NPW pipeline is proposed to be installed are single family residences approximately 52 feet to the west, located on Jefferson Street.

Construction-Generated Air Contaminants

Construction-related activities would result in temporary, short-term Proposed Project-generated emissions of diesel particulate matter (DPM), ROG, NO_x, CO, and PM₁₀ from the exhaust of off-road, heavy-duty diesel equipment for site preparation (e.g., clearing, grading); soil hauling truck traffic; paving; and other miscellaneous activities. The Riverside County portion of the SSAB is listed as a nonattainment area for the federal O₃ and PM₁₀ standards and is also a nonattainment area for the state standards for O₃ and PM₁₀ (CARB 2022). Thus, existing O₃ and PM₁₀ levels in the SSAB are at unhealthy levels during certain periods. However, as shown in Table 4.3-1 and Table 4.3-3, the Project would not exceed the SCAQMD regional or localized significance thresholds for emissions.

The health effects associated with O₃ are generally associated with reduced lung function. Because the Proposed Project would not involve construction activities that would result in O₃ precursor emissions (ROG or NO_x) in excess of the SCAQMD thresholds, the Proposed Project is not anticipated to substantially contribute to regional O₃ concentrations and the associated health impacts.

CO tends to be a localized impact associated with congested intersections. In terms of adverse health effects, CO competes with oxygen, often replacing it in the blood, reducing the blood's ability to transport oxygen to vital organs. The results of excess CO exposure can include dizziness, fatigue, and impairment of central nervous system functions. The Project would not involve construction activities that would result in CO emissions in excess of the SCAQMD thresholds. Thus, the Project's CO emissions would not contribute to the health effects associated with this pollutant.

Particulate matter (PM₁₀ and PM_{2.5}) contains microscopic solids or liquid droplets that are so small that they can get deep into the lungs and cause serious health problems. Particulate matter exposure has been linked to a variety of problems, including premature death in people with heart or lung disease, nonfatal heart attacks, irregular heartbeat, aggravated asthma, decreased lung function, and increased respiratory symptoms such as irritation of the airways, coughing, or difficulty breathing. For construction activity, DPM is the primary TAC of concern. PM₁₀ exhaust is considered a surrogate for DPM as all diesel exhaust is considered to be DPM and PM₁₀ contains PM_{2.5} as a subset. As with O₃ and NO_x, the Project would not generate emissions of PM₁₀ or PM_{2.5} that would exceed the SCAQMD's thresholds. Accordingly, the Project's PM₁₀ and PM_{2.5} emissions are not expected to cause any increase in related regional health effects for these pollutants.

In summary, Project construction would not result in a potentially significant contribution to regional concentrations of nonattainment pollutants and would not result in a significant contribution to the adverse health impacts associated with those pollutants. Furthermore, the Proposed Project has been evaluated against the SCAQMD's LSTs for construction. As previously stated, LSTs were developed in response to SCAQMD Governing Boards' Environmental Justice Enhancement Initiative and can be used to assist lead agencies in analyzing localized impacts associated with Project-specific level of proposed projects. The SCAQMD Environmental Justice Enhancement Initiative program seeks to ensure that everyone has the right to equal protection from air pollution. The Environmental Justice Program is divided into three categories, with the LST protocol promulgated under Category I: *Further-Reduced Health Risk*. As shown in Table 4.3-1, the emissions of pollutants on the peak day of construction would

not result in significant concentrations of pollutants at nearby sensitive receptors. Thus, the fact that onsite Project construction emissions would be generated at rates below the LSTs for NO_x, CO, PM₁₀, and PM_{2.5} demonstrates that the Proposed Project would not adversely impact vicinity sensitive receptors. A less than significant impact would occur.

Operational Air Contaminants

Operation of the Proposed Project would not result in the development of any substantial sources of air toxics. There are no stationary sources associated with the operations of the Proposed Project; nor would the Proposed Project attract additional mobile sources that spend long periods queuing and idling at the site. Furthermore, the Project is proposing to make upgrades to the existing systems, and once construction is complete, operational emissions would remain relatively similar to existing emissions. Onsite Project emissions would not result in significant concentrations of pollutants at nearby sensitive receptors. The Project would not have a high carcinogenic or non-carcinogenic risk during operation.

Carbon Monoxide Hot Spots

It has long been recognized that CO exceedances are caused by vehicular emissions, primarily when idling at intersections. Concentrations of CO are a direct function of the number of vehicles, length of delay, and traffic flow conditions. Under certain meteorological conditions, CO concentrations close to congested intersections that experience high levels of traffic and elevated background concentrations may reach unhealthy levels, affecting nearby sensitive receptors. Given the high traffic volume potential, areas of high CO concentrations, or "hot spots," are typically associated with intersections that are projected to operate at unacceptable levels of service during the peak commute hours. It has long been recognized that CO hotspots are caused by vehicular emissions, primarily when idling at congested intersections. However, transport of this criteria pollutant is extremely limited, and CO disperses rapidly with distance from the source under normal meteorological conditions. Furthermore, vehicle emissions standards have become increasingly stringent in the last 20 years. Currently, the allowable CO emissions standard in California is a maximum of 3.4 grams/mile for passenger cars (there are requirements for certain vehicles that are more stringent). With the turnover of older vehicles, introduction of cleaner fuels, and implementation of increasingly sophisticated and efficient emissions control technologies, CO concentration in the SSAB is designated as being in attainment. Detailed modeling of Project-specific CO "hot spots" is not necessary and thus this potential impact is addressed qualitatively.

A CO "hot spot" would occur if an exceedance of the state one-hour standard of 20 parts per million (ppm) or the eight-hour standard of 9 ppm were to occur. The analysis prepared for CO attainment in the SCAQMD's 1992 *Federal Attainment Plan for Carbon Monoxide* in Los Angeles County and a Modeling and Attainment Demonstration prepared by the SCAQMD as part of the 2003 AQMP can be used to demonstrate the potential for CO exceedances of these standards. The SCAQMD is the air pollution control officer for much of southern California. The SCAQMD conducted a CO hot spot analysis as part of the 1992 CO Federal Attainment Plan at four busy intersections in Los Angeles County during the peak morning and afternoon time periods. The intersections evaluated included Long Beach Boulevard and Imperial Highway (Lynwood), Wilshire Boulevard and Veteran Avenue (Westwood), Sunset Boulevard and Highland Avenue (Hollywood), and La Cienega Boulevard and Century Boulevard (Inglewood). The busiest

intersection evaluated was at Wilshire Boulevard and Veteran Avenue, which has a traffic volume of approximately 100,000 vehicles per day. Despite this level of traffic, the CO analysis concluded that there was no violation of CO standards (SCAQMD 1992). In order to establish a more accurate record of baseline CO concentrations affecting Los Angeles, a CO “hot spot” analysis was conducted in 2003 at the same four busy intersections in Los Angeles at the peak morning and afternoon time periods. This “hot spot” analysis did not predict any violation of CO standards. The highest one-hour concentration was measured at 4.6 ppm at Wilshire Boulevard and Veteran Avenue and the highest eight-hour concentration was measured at 8.4 ppm at Long Beach Boulevard and Imperial Highway. Thus, there was no violation of CO standards.

Similar considerations are also employed by other Air Districts when evaluating potential CO concentration impacts. More specifically, the Bay Area Air Quality Management District (BAAQMD), the air pollution control officer for the San Francisco Bay Area, concludes that under existing and future vehicle emission rates, a given project would have to increase traffic volumes at a single intersection by more than 44,000 vehicles per hour or 24,000 vehicles per hour where vertical and/or horizontal air does not mix—in order to generate a significant CO impact.

As discussed in the 2020 SMP PEIR, the Proposed Project would result in negligible, if any, operation vehicle trips beyond existing conditions. Thus, the Proposed Project would not generate traffic volumes at any intersection of more than 100,000 vehicles per day (or 44,000 vehicles per day) and there is no likelihood of the Project traffic exceeding CO values.

Because of these reasons, air quality impacts to sensitive receptors are less than significant.

Would the Project:	Potentially Significant Impact	Project Impact Adequately Addressed in SMP PEIR	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Project Impact Adequately Addresses in SMP PEIR.

Typically, odors are regarded as an annoyance rather than a health hazard. However, manifestations of a person’s reaction to foul odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache).

As addressed in the 2020 SMP PEIR, odors during construction may presents the potential for generation of objectionable odors in the form of diesel exhaust in the immediate vicinity of the site. However, these emissions are short-term in nature and will rapidly dissipate and be diluted by the atmosphere downwind of the emission sources. Additionally, odors would be localized and generally confined to the construction area. Therefore, construction odors would not adversely affect a substantial number of people to odor emissions.

During operations, the Proposed Project aims to make improvements that will increase treatment capacity at its wastewater treatment plant. However, implementation of the Project would not result in the introduction of any new processes that are considered to have a high odor-generation potential beyond existing conditions and would not result in substantial changes to treatment processes that are of primary concern with regard to odor generation (i.e., sludge handling or drying practices).

Furthermore, the SMP EIR notes that CVWD will continue to implement odor-control measures at all of its facilities for both liquid and solids treatment processes at locations with high potential for odors. These measures generally involve treating odorous air through adsorption units that chemically and physically remove and disperse odors. In addition, CVWD regularly implements best operating practices and good housekeeping, which also serve to reduce odor generation at all their facilities. Furthermore, the Project would also be required to comply with SCAQMD Rule 402 to prevent occurrences of public nuisances. Rule 402 prohibits the discharge from any source that causes nuisance, annoyance, or discomfort to a considerable number of persons. As such, the Proposed Project would have a less than significant impact due to odors.

4.3.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.4 Biological Resources

The analysis of biological resources is tiered from the 2020 SMP PEIR and was addressed in Section 4.2, Biological Resources, of that document. CVWD will serve as the CEQA Lead Agency. Relevant elements of the Proposed Project related to biological resources include removal of existing ruderal and landscaped vegetation within the Project Area. Information about biological resources was obtained from a review of regional databases, aerial photographs, prior environmental documents, and other pertinent literature including:

- California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDDB; CDFW 2023) (Appendix B)
- California Native Plant Society's (CNPS) Electronic Inventory (CNPS 2023) (Appendix C)
- United States Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) Species Lists (United States Fish and Wildlife Service [USFWS] 2023a) (Appendix F1) Coachella Valley Multiple Species Habitat Conservation Plan (Coachella Valley Association of Governments [CVAG] 2007)
- National Wetlands Inventory Surface Waters and Wetlands Mapper (USFWS 2023b)
- United States Geological Survey (USGS) National Hydrography Dataset (USGS 2023) – Provides the locations of "blue-line" streams as mapped on 7.5-Minute Topographic Map coverage
- Natural Resource Conservation Service (NRCS) Soil Survey (NRCS 2023a)
- Aerial Imagery; Google Earth (Google 2023)

The Proposed Project is located outside of NOAA Fisheries jurisdiction; therefore, a NOAA Fisheries species list was not obtained for this Project.

The following applicable mitigation measures were adopted as part of the 2020 SMP PEIR and are incorporated as part of the Proposed Project and assumed in the analysis presented in this section.

BIO-2: CVMSHCP Land Use Adjacency Guidelines. Prior to final design approval for projects adjacent to a Conservation Area, compliance with Section 4.5 (Land Use Adjacency Guidelines) of the CVMSHCP shall be demonstrated. Such compliance shall include, but not necessarily be limited to, demonstrating the design of the project would not result in the release of toxins, chemicals, petroleum products, exotic plant materials, or other elements that might degrade or harm biological resources or ecosystem processes within or adjacent to a Conservation Area.

BIO-3: Pre-construction Burrowing Owl Surveys. For covered activities in Conservation Areas, or other areas as designated in Section 4.4 of the CVMSHCP, pre-construction burrowing owl surveys will be conducted by a qualified biologist within 14 days and again 24 hours prior to the implementation of ground disturbing activities. The project area and area within 500 feet of the project area (or to the edge of the property if less than 500 feet) will be surveyed for burrows that could be used by burrowing owls. If burrows are located, the biologist will determine if owls are present in the burrow. If the burrow is determined to be occupied, the burrow will be flagged and a 160-foot non-breeding season buffer or 250-foot breeding season buffer will be established around the burrow. No activities will be permitted within the buffer until the young are no longer dependent on the burrow.

If burrowing owls are identified on site, then burrow excavation and collapse activities will be necessary. Burrow excavation and collapse activities shall only be conducted during the non-breeding season for burrowing owls (September 1 through January 31). Coordination with CDFW on burrow excavation and collapse activities will need to occur, and methods will follow the specific protocols and guidance outlined in the CDFW *Staff Report on Burrowing Owl Mitigation* (2012).

BIO-5: Pre-construction Survey for Nesting Birds. Construction activities of projects shall be conducted during the non-breeding season for birds (September 16 through December 31). This will avoid violations of the MBTA and CFGC Sections 3503, 3503.5 and 3513. If activities with the potential to disrupt nesting birds are scheduled to occur during the bird breeding season (January 1 through July 31 for raptors and March 1 through September 15 for songbirds), a pre-construction nesting bird survey shall be conducted by a qualified biologist within the project area and adjacent areas where project activities have the potential to cause nest failure. If no nesting birds are observed during the survey, implementation of project activities may begin. If nesting birds (including nesting raptors) are found to be present, then avoidance or minimization measures shall be undertaken in consultation with CDFW. Measures shall include establishment of an avoidance buffer until nesting has been completed. The width of the buffer will be determined by the biologist in consultation with

CDFW. Typically, this is a minimum of 300 feet from the nest site in all directions (500 feet is typically recommended by CDFW for raptors), until the juveniles have fledged and there has been no evidence of a second attempt at nesting.

4.4.1 Environmental Setting

Assessment of the Proposed Project began with a review of relevant literature of the Project Area, the pump station, pipeline alignment area, and the surrounding vicinity using the CDFW's CNDDDB (CDFW 2023; Appendix B), the CNPS's Electronic Inventory (CNPSEI; CNPS 2023; Appendix C), the USFWS's IPaC Species Lists (USFWS 2023a; Appendix F1), and the CVMShCP Designations, to determine the special-status plant and wildlife species that have been documented on or near the Project Area. ECORP Consulting, Inc. (ECORP) biologists searched CNDDDB and CNPSEI records within the Project Area boundaries as depicted on USGS 7.5-minute "Myoma" topographic quadrangle, plus the surrounding eight topographic quadrangles including La Quinta, West Berdoo Canyon, Keys View, East Deception Canyon, Indio, Seven Palms Valley, Rancho Mirage, and Cathedral City. The CNDDDB and CNPSEI contain records of reported occurrences of federally or state-listed endangered, threatened, proposed endangered or threatened species, California Species of Special Concern (SSC), and/or other special-status species or habitat that may occur within or near the Project Area. An official species list was requested from the USFWS IPaC (USFWS 2023a; Appendix F1) for each of the three Project Areas to determine whether any federally listed species and/or Critical Habitats could occur within or in the vicinity of the Proposed Project (Appendix F2). The Proposed Project is located outside of NOAA Fisheries jurisdiction; therefore, a NOAA Fisheries species list is not required.

Analysis in this section is supplemented by information resulting from a general biological resources survey completed on May 24, 2023, by ECORP biologists with experience identifying special-status biological resources and their habitat requirements. During the survey, the biologists conducted a walkover survey throughout the entire Project Area, the pump station, and associated pipeline alignment areas plus a 500-foot buffer (Study Area), where accessible, to evaluate vegetation communities, wildlife habitats, and any areas that may potentially be jurisdictional waters. The biologists documented the plant and wildlife species present within the Study Area, and the location and condition of the Study Area was assessed for the potential to provide habitat for special-status plant and wildlife species. When possible, areas within the 500-foot buffer were scanned using binoculars to determine if suitable habitat for sensitive biological resources was present.

The Proposed Project would be subject to county, state, and federal regulations regarding compliance with the federal Endangered Species Act (ESA), California ESA, Migratory Bird Treaty Act (MBTA), and California Fish and Game Code.

4.4.1.1 Vegetation Communities

The Study Area does not support any sensitive native habitat communities. Vegetation communities/land cover types identified within the Project Area and 500-ft buffer include developed, disturbed, agriculture, and disturbed *Atriplex canescens* Shrubland Alliance (Figure 4). Plant species observed during the biological survey include fourwing saltbush (*Atriplex canescens*), big saltbush (*Atriplex lentiformis*), allscale

saltbush (*Atriplex polycarpa*), broom baccharis (*Baccharis sarothroides*), great bougainvillea (*Bougainvillea spectabilis*), bermuda grass (*Cynodon dactylon*), brittlebush (*Encelia farinosa*), goldenbush (*Ericameria* sp.), common sunflower (*Helianthus annuus*), oleander (*Nerium oleander*), date palm (*Phoenix* sp.), arrowweed (*Pluchea sericea*), knotweed (*Polygonum* sp.), mesquite (*Prosopis* sp.), bush seepweed (*Suaega nigra*), athel (*Tamarix aphylla*), tamarisk (*Tamarix ramosissima*), and fan palm (*Washingtonia* sp.).

4.4.1.2 Wildlife

The wildlife species observed within the Study Area were typical of the developed setting as well as the adjacent desert habitat present. Wildlife species observed during the biological survey include mallard (*Anas platyrhynchos*), burrowing owl (*Athene cunicularia*), verdin (*Auriparus flaviceps*), red-tailed hawk (*Buteo jamaicensis*), common raven (*Corvus corax*), northern mockingbird (*Mimus polyglottos*), cliff swallow (*Petrochelidon pyrrhonota*), and mourning dove (*Zenaida macroura*).

4.4.1.3 Soils

The soils identified within the Project Area, pump station, and associated pipeline alignment areas are comprised of the following units: CsA – Coachella fine sandy loam, 0 to 2 percent slopes, GbA – Gilman fine sandy loam, 0 to 2 percent slopes, Is – Indio very sandy loam, and MaB – Myoma fine sand, 0 to 5 percent slopes. These soil units vary between well drained and somewhat excessively drained.

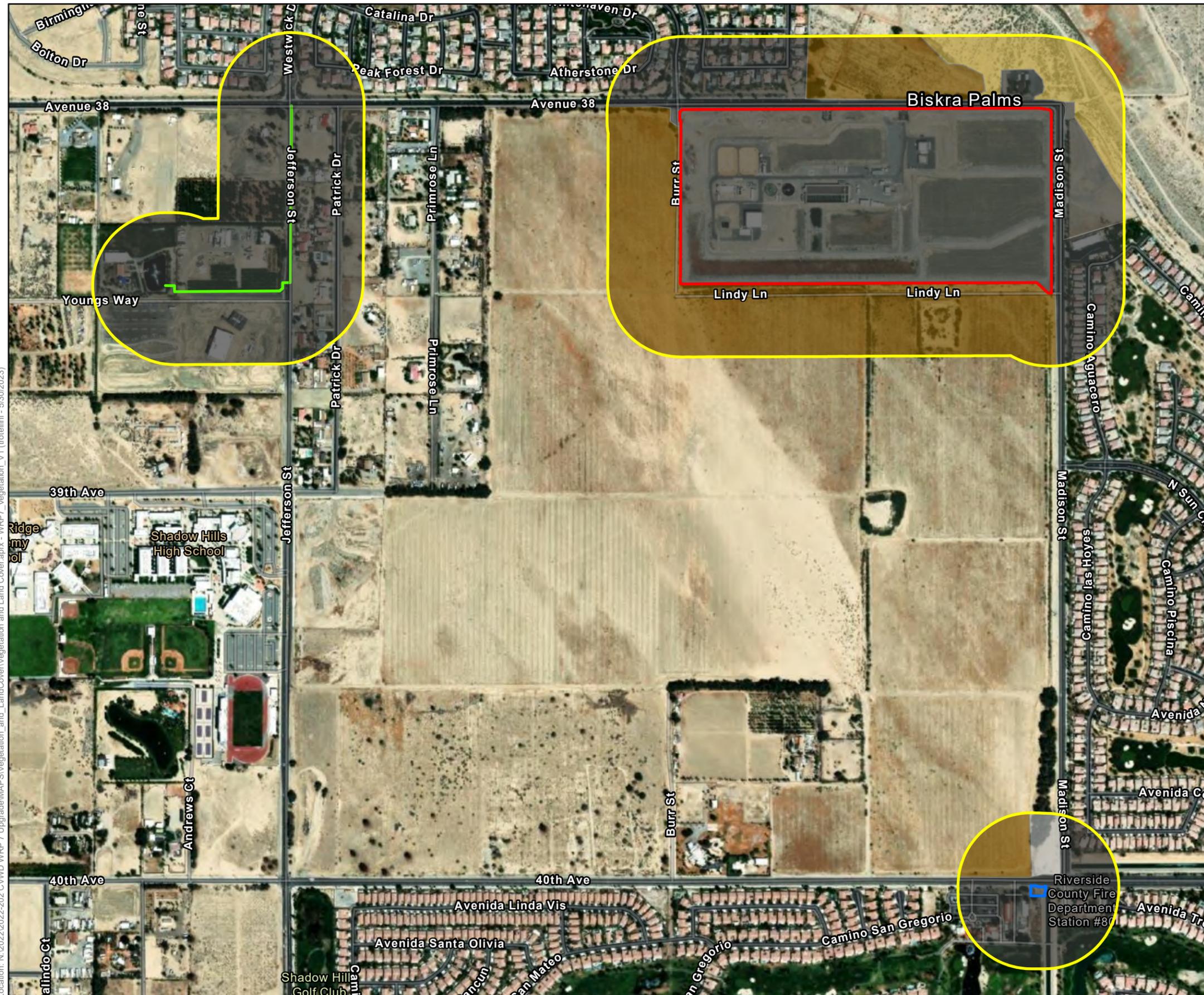
4.4.1.4 Potential Waters of the U.S.

National Wetland Inventory

The USFWS is the principal Federal agency that provides information to the public on the extent and status of the Nation's wetlands. The USFWS has developed a series of maps, known as the National Wetland Inventory (NWI) to show wetlands and deepwater habitat. This geospatial information is used by federal, state, and local agencies, academic institutions, and private industry for management, research, policy development, education, and planning activities. The NWI program was neither designed nor intended to produce legal or regulatory products; therefore, wetlands identified by the NWI program are not the same as wetlands defined by the United States Army Corp of Engineers (USACE).

A formal aquatic resources delineation was not completed as part of the biological survey. A desktop review of the NWI Mapper (USFWS 2023b) was performed to review mapped wetlands within the Study Area (Figure 5). The NWI Mapper identifies two features in the Project Area, defined as follows:

- **NWI Feature 1:** Freshwater Emergent Wetland classified as PEM1Cx (Palustrine, Emergent, Persistent (1), Seasonally Flooded, and Excavated).
- **NWI Feature 2:** Freshwater Pond Wetland classified as PUBHx (Palustrine, Unconsolidated Bottom, Permanently Flooded, and Excavated).



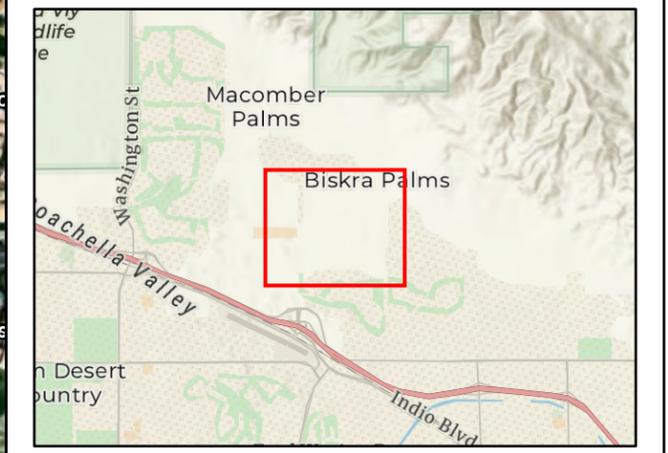
Map Contents

- Project Area
- MP 113.2 Pump Station
- 500-ft Buffer
- Pipeline Alignment

Vegetation Communities and Land Cover Types

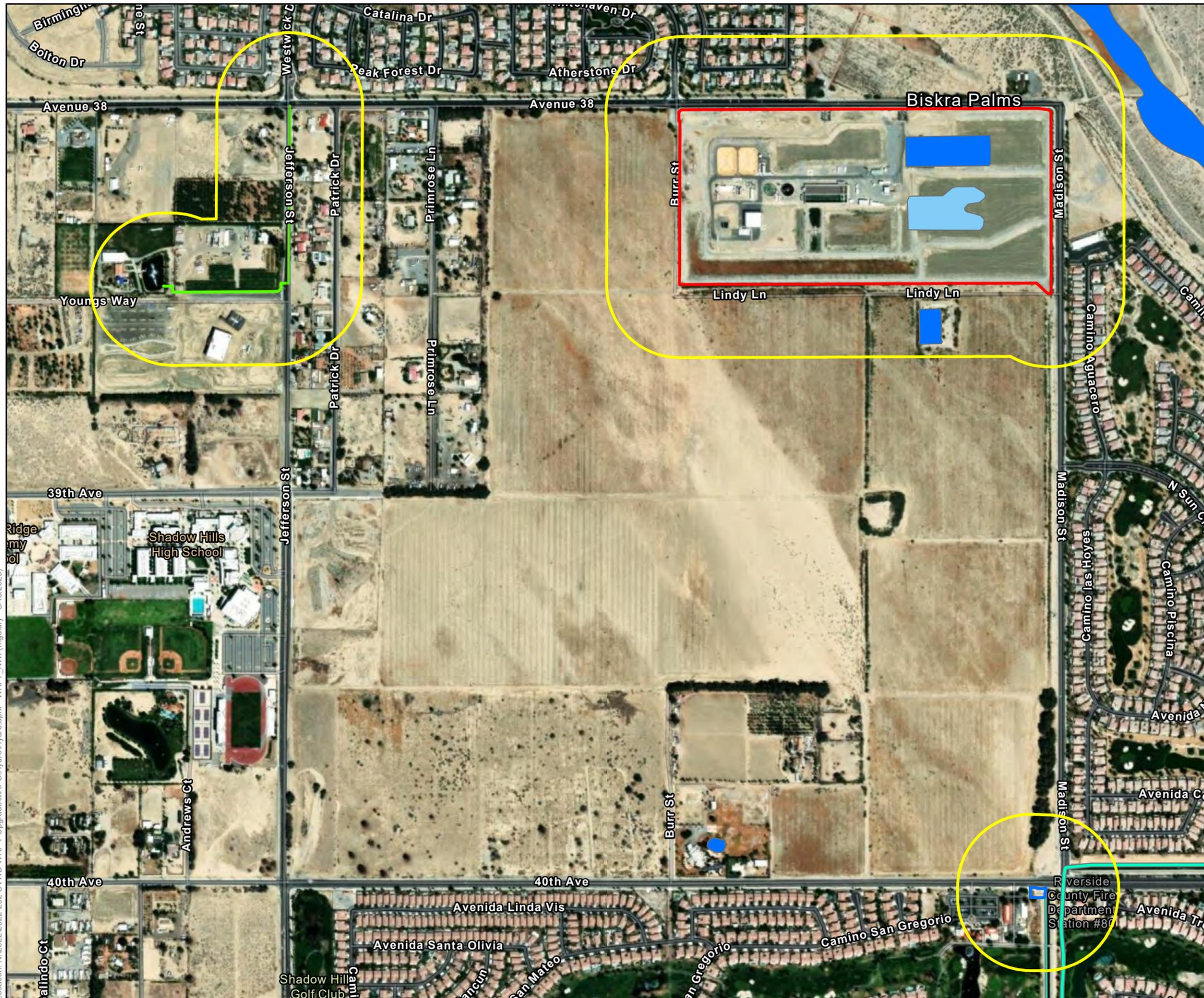
- Agriculture
- Developed
- Disturbed
- Disturbed *Atriplex canescens* Shrubland Alliance

Sources: ESRI
Other Related Info if Needed



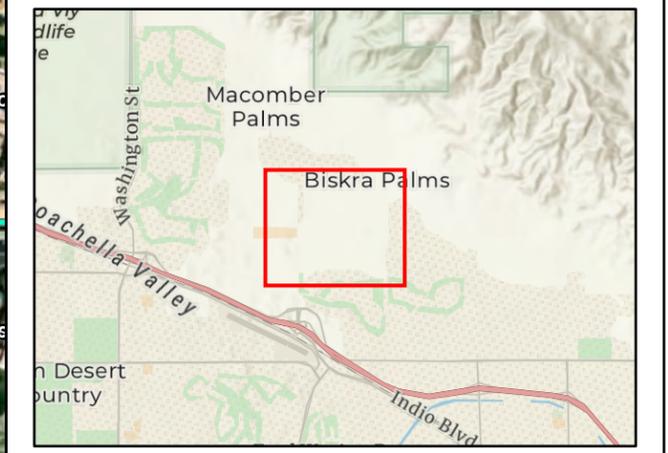
Location: N:\2022\2022-202 CVWD WRP 7 Upgrade\MAPS\Vegetation_and_LandCover\Vegetation_and_LandCover.aprx - WRP7_Vegetation_V1 (trotellini - 5/30/2023)

Figure 4. Vegetation Communities and Land Cover Types



- Map Contents**
- Project Area
 - MP 113.2 Pump Station
 - 500-ft Buffer
 - Pipeline Alignment
- NWI Type**
- PEM1Cx (Palustrine, Emergent, Persistent (1), Seasonally Flooded, and Excavated)
 - PUBHx (Palustrine, Unconsolidated Bottom, Permanently Flooded, and Excavated)
 - Riverine

Sources: ESRI, NWI
Other Related Info if Needed



Location: N:\2022\2022-202 CVWD WRP 7 Upgrade\MAPS\Hydro\Hydro.aprx - WRP7_NWI (mguidry - 8/18/2023)

Map Date: 5/17/2023



Additionally, a NWI Riverine Feature (R5UBFx) occurs immediately east of the pump station. No NWI Features occur on or adjacent to the pipeline alignment.

The Project Area contains numerous water basins, two of which contained standing water at the time of the biological survey. These two water basins were also vegetated along their perimeters containing plant species including bermuda grass and arrowweed. Under the current definitions of Waters of the U.S. and Waters of the State, these water basins are not considered jurisdictional features.

Aerial imagery shows a manmade lake located at the southwestern end of the pipeline alignment on Young's Farm property. Mr. Young, the landowner, communicated that the manmade lake contains a couple of species of fish including catfish (*Ameiurus* sp. and/or *Ictalurus* sp.) and mosquito fish (*Gambusia* sp.). The manmade lake located on Young's farm is a man-made agricultural stock pond supplied by groundwater from a private well at the owner's discretion. At the time of a June 2023 field survey, small amounts of emergent vegetation were present along the bank and submergent vegetation was visible within the pond. This feature is not considered jurisdictional to USACE under the current guidelines. The manmade lake does not possess a surface hydrologic connection to any downstream Waters of the U.S. In addition, the manmade lake does not support any surface water-related interstate commerce. The manmade lake is an agricultural pond created in upland and is filled by an onsite groundwater well. Under current federal definition of Waters of the U.S., this agricultural pond would not be regulated under Section 404 of the Clean Water Act.

4.4.1.5 Special-Status Plants

The literature review and database searches identified 43 special-status plant species that have been documented near the Study Area within the Myoma quadrangle and surrounding eight quadrangles (CDFW 2023; CNPS 2023). A list was generated from the results of the literature review and the database search. During the site visit, the Study Area was evaluated for suitable habitat that could support any of the special-status plant species.

No sensitive plant species were observed within the Study Area during the site visit. Based on the habitat found onsite, special status plant species are presumed to be absent from the Project Area due to lack of suitable habitat and the presence of disturbed soils/current land use, the Project Area being outside the known elevation range for that species, and/or the species not being observed during the biological survey.

4.4.1.6 Special-Status Wildlife

Special-status wildlife species include those classified as endangered or threatened, proposed or candidate species for listing by the USFWS or CDFW, or considered a CDFW SSC. The literature review and database searches identified 28 special-status wildlife species that have been documented near the Study Area within the Myoma quadrangle and surrounding eight quadrangles (CDFW 2023).

CVMSHCP modeled wildlife habitats that occur within or adjacent to the Study Area for the following species: Coachella giant sand treader cricket (*Macrobaenetes valgum*), flat-tailed horned lizard (*Phrynosoma mcallii*), Coachella Valley fringe-toed lizard (*Uma inornata*), Le Conte's thrasher (*Toxostoma*

lecontei), Palm Springs pocket mouse (*Perognathus longimembris bangsi*), and Palm springs ground squirrel (*Xerospermophilus tereticaudus chlorus*). However, no suitable habitat for either Le Conte's thrasher or Palm Springs round-tailed ground squirrel was observed within the Study Area during the biological survey.

Although the Project Area is developed, it does contain suitable habitat for several special-status wildlife species including burrowing owl (BUOW), western mastiff bat (*Eumops perotis californicus*), and western yellow bat (*Lasiurus xanthinus*). Only one special-status wildlife species was observed within the Project Area during the biological survey: BUOW, a CDFW SSC.

The Project Area and the immediate surrounding area contain low to moderately suitable habitat for Coachella giant sand treader cricket, flat-tailed horned lizard, Coachella Valley fringe-toed lizard, loggerhead shrike (*Lanius ludovicianus*), and Palm Springs pocket mouse. The remaining species from the literature review are presumed absent from the Project Area.

4.4.1.7 Critical Habitat

The USFWS online service for information regarding Threatened and Endangered Species Final Critical Habitat designation within California was reviewed to determine if the Project Area occurs within any species designated Critical Habitat. Critical Habitat for Coachella Valley fringe-toed lizard exists approximately 2.4 miles west of the Project Area.

4.4.1.8 Wildlife Movement Corridors

The Study Area is within a moderately developed area. The Proposed Project is within the planning area for the CVMSHCP. However, it is not within a Conservation Area. Nearby Conservation Areas include East Indio Hills and Indio Hills Palms Conservation Area which is also a Biological Corridor Linkage located north and east from the Project Area. It is possible that the Project Area functions in local wildlife movement; however, based on the relatively small size of the site and the fact that it is adjacent to paved roads/developed areas, it is unlikely that the site plays a critical role in local wildlife movement. Project activities would not interfere substantially with the movement of any wildlife species and/or wildlife corridors because no migratory wildlife corridors or native wildlife nursery sites were identified within the Project Area.

4.4.2 Biological Resources Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Project Impact Adequately Addressed in SMP PEIR	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Less than Significant with Mitigation Incorporated.

Sensitive Plant Species

Project activities could result in the direct removal of herbaceous forbs and common ruderal plant species as well as the removal and relocation of palm trees. Common plant species present within the Study Area occur in large numbers throughout the region and their removal does not meet the significance threshold. Based on the high levels of disturbance, low habitat quality, and the lack of detection of any special-status plants during the biological habitat assessment, the Proposed Project is not expected to impact any special-status plant species. Based on the habitat found onsite, no direct impacts are expected to occur as a result of Project implementation, and no mitigation measures are recommended.

Sensitive Wildlife Species

Development of the Project Area would result in the disruption and removal of disturbed/developed and non-native habitat. Due to the lack of native habitat and the level of existing disturbance levels onsite and within the vicinity (e.g., developed, agricultural, disturbed, and disturbed *Atriplex canescens* Shrubland Alliance), these impacts would not be expected to reduce the general wildlife populations below self-sustaining levels within the region and impacts to non-sensitive wildlife species do not meet the significance thresholds. Due to the developed nature of the Project Area, surrounding development, and through compliance with the CVMSHCP, impacts from the Proposed Project are anticipated to have a less than significant effect on these wildlife species.

The Project Area and surrounding area contain low to moderately suitable habitat for several special-status wildlife species that are covered by the CVMSHCP: Coachella giant sand treader cricket, flat-tailed horned lizard, Coachella Valley fringe-toed lizard, and Palm Springs pocket mouse. These species also have CVMSHCP modeled wildlife habitats that occur within or adjacent to the Study Area. The Project Area is located outside of a defined Conservation Area of the CVMSHCP, and the Proposed Project is considered a Covered Activity under the CVMSHCP. CVWD is a primary permittee with various obligations and commitments under the plan associated with CVMSHCP incidental take permit authorized by the U.S. Fish and Wildlife Service and California Department of Fish and Wildlife (CVAG 2007). For CVMSHCP

covered activities located outside of Conservation Areas, impacts to special-status species are achieved through payment of mitigation fees imposed by the individual jurisdictions in which they occur. Payment of mitigation fees would reduce impacts to a less than significant level.

Burrowing Owl

One burrowing owl was observed within the Project Area at a burrow located on the wall of one of the water basins (Figure 6). Burrowing owl sign in the form of whitewash was present at the burrow entrance. Additionally, the Project Area contains suitable habitat, and multiple suitable size burrows were observed during the biological survey. The areas in the vicinity could also provide suitable foraging habitat as well as breeding habitat for burrowing owl. There are 11 previously documented occurrences of this species from the CNDDDB in the vicinity of the Project Area (CDFW 2023). Due to the timing of the owl sighting during the breeding season, it is assumed that the Project Area supports breeding individuals.

Burrowing owl is a covered species under the CVMSHCP, which has special survey requirements for the species. In order to avoid potential impacts to this species, mitigation measures are proposed and include conducting a burrowing owl survey and implementation of avoidance measures, if the species is present.

It should be noted that burrowing owl, although a "covered" species under the CVMSHCP, also receives protection under the Fish and Game Code and MBTA. Therefore, surveys and mitigation would be required regardless of the species' location within the Plan Area. Implementation of Mitigation Measure BIO-3, from the 2020 SMP PEIR, and Mitigation Measure BIO-Project Specific (PS)-1 would ensure that potential impacts to burrowing owls would be less than significant.

Loggerhead Shrike

The Study Area has suitable foraging and nesting habitat for loggerhead shrike. The Project Area contains suitable perches for hunting in the agricultural fields located immediately adjacent to the Project Area. In addition, CNDDDB has one previously documented occurrence of this species in the vicinity of the Project Area (CDFW 2023). Implementation of BIO-5 from the 2020 SMP PEIR would reduce impacts to loggerhead shrike to less than significant.

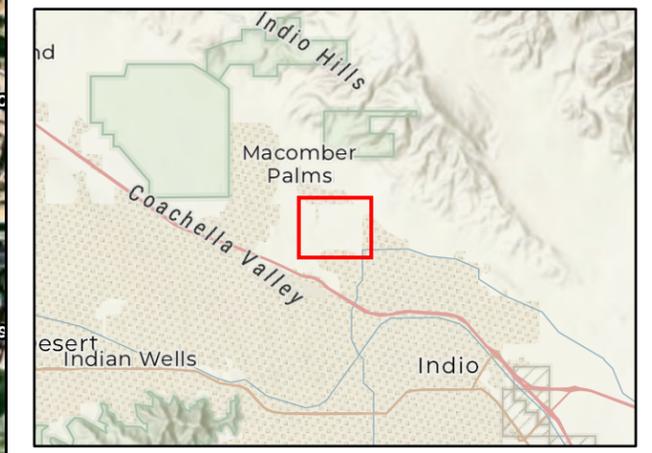
Nesting Birds and Other Raptors

The Study Area has the potential to support various avian species and raptor nests due to the presence of existing structures, shrubs, and trees onsite. Active bird nests were identified within the Project Area during the biological survey including an active red-tailed hawk nest located in a communications tower and greater than 100 active cliff swallow nests located underneath an overhang of a concrete building (Figure 6). Since Project activities and the removal of vegetation could result in impacts to raptor species and nesting birds, Mitigation Measure BIO-5 from the 2020 SMP PEIR shall be implemented to reduce impacts to less than significant. Disturbing or destroying active nests is a violation of the MBTA (16 U.S.C. 703 et seq.). In addition, nests and eggs are protected under Fish and Game Code 3503.



- Map Contents**
- Project Area
 - MP 113.2 Pump Station
 - 500-ft Buffer
 - Pipeline Alignment
- Survey Results**
- + Cliff Swallow Nest (Occupied)
 - + Red-tailed Hawk Nest (Occupied)
 - Burrow with Burrowing Owl

Sources: ESRI, CVMSHCP
Other Related Info if Needed



Location: N:\2022\2022-202 CVWD WRP 7 Upgrade\MAPS\Biological_Resources.aprx - WRP7_Survey_Results_20230530 (trollini - 5/30/2023)



Figure 6. Biological Survey Results

Bat Species

The Project Area and adjacent area has the potential to support two special-status bat species due to the presence of existing structures and tree species (i.e., palm trees with intact thatch). These bat species include western mastiff bat and western yellow bat. Western mastiff bat is primarily a cliff-dwelling species; however, it can also be found roosting in crevices such as those found on man-made structures such as buildings. Western yellow bat is a foliage-roosting species that is known to roost in native and non-native palm trees and other broadleaf trees.

Bats in California are currently protected by the California Fish and Game Code, Sections 86, 1600, 2000, 2014, 3007, and 4150; California Public Resources Code, Division 14, Section 21000 et seq.; and California CCR Title 14 including, but not limited to Section 251.1, CEQA regulations (Section 15000 et seq.), Section 15380 – Endangered, Rare, or Threatened Species, Section 15382 – Significant Effect on the Environment, and Appendix O.

Regulations of particular relevance to this Proposed Project include Title 14, Section 251.1 of the CCR, which prohibits harassment (defined in that section as an intentional act that disrupts an animal’s normal behavior patterns, including breeding, feeding, or sheltering) of nongame mammals (e.g., bats), and California Fish and Game Code Section 4150, which prohibits *take* or possession of all nongame mammals or parts thereof. Any activities resulting in bat mortality (e.g., the destruction of an occupied bat roost that results in the death of bats), disturbance that causes the loss of a maternity colony of bats (resulting in the death of young), or various modes of nonlethal pursuit or capture may be considered *take* as defined in Section 86 of the California Fish and Game Code. In addition, impacts to bat maternity colonies, which are considered native wildlife nursery sites, could be considered significant under CEQA. Project activities can result in impacts to bat species; however, implementation of Mitigation Measures BIO-PS-2 through BIO-PS-5 would reduce impacts to less than significant.

Would the Project:	Potentially Significant Impact	Project Impact Adequately Addressed in SMP PEIR	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No Impact.

Potential impacts to vegetation communities/land cover types due to the implementation of the Proposed Project include grading and vegetation removal. Individual native plant species located in the Project Area were present in volumes not large enough to be considered their own vegetation community. Based on an assessment of vegetation communities and land cover types (Figure 4), the Proposed Project will not impact any native habitats, riparian habitat, or sensitive natural communities. No critical habitat for any

listed threatened or endangered species as defined under the Federal Endangered Species Act is defined in the Project Area. No impact would occur.

Would the Project:	Potentially Significant Impact	Project Impact Adequately Addressed in SMP PEIR	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No Impact.

The water basins located at the WRP 7 facility do not meet the current definition of Waters of the U.S. or Waters of the State, which excludes waste treatment systems, including treatment ponds or lagoons. Therefore, these water basins are not considered jurisdictional features.

The manmade lake located on Young’s farm is a man-made agricultural stock pond supplied by groundwater from a private well at the owner’s discretion. At the time of a June 2023 field survey, small amounts of emergent vegetation were present along the bank and submergent vegetation was visible within the pond. This feature is not considered jurisdictional to USACE under the current guidelines. The manmade lake does not possess a surface hydrologic connection to any downstream Waters of the U.S. In addition, the manmade lake does not support any surface water-related interstate commerce. The manmade lake is an agricultural pond created in upland and is filled by an onsite groundwater well. The pond appears to be exempt under Section II(3)(d)(v) of the State Board’s Procedures as agricultural stock watering. None of the exemptions in Sections 2, 3a, or 3b that could negate the agricultural stock watering exemption appear to apply to the agricultural pond. Under current federal definition of Waters of the U.S, and the State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State, this agricultural pond would not be regulated under Section 404/401 of the Clean Water Act or the Porter-Cologne Water Quality Act, respectively.

The pond located in the Project Area at Young’s farm, fed by groundwater from a private well, is not a “natural flow” of a stream, river, or lake, and it is unlikely it would be considered jurisdictional by CDFW, and therefore, is not subject to a 1600 LSA notification. No impact would occur.

Would the Project:	Potentially Significant Impact	Project Impact Adequately Addressed in SMP PEIR	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Less than Significant Impact.

The Study Area may serve a function in local wildlife dispersal and foraging; however, due to the developed nature of the Project Area and the high activity levels present onsite, the loss of foraging habitat and/or effect on local wildlife movement would be less than significant. No long-term or significant effects to wildlife movement are anticipated due to Project implementation. Although, the Project Area does not lie within a CVMSHCP-designated wildlife corridor, East Indio Hill Conservation Area is adjacent to the Project Area; however, the Proposed Project is not anticipated to have significant impacts related to habitat fragmentation and regional wildlife movement. In addition, fencing and gates are present surrounding the Project Area, and roads and nearby residences are also a barrier to wildlife movement. Indirect impacts could result from increased human disturbance, noise, lighting, and other edge effects. These indirect impacts would only occur during construction and would not be permanent. Therefore, indirect impacts are not considered significant.

Would the Project:	Potentially Significant Impact	Project Impact Adequately Addressed in SMP PEIR	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

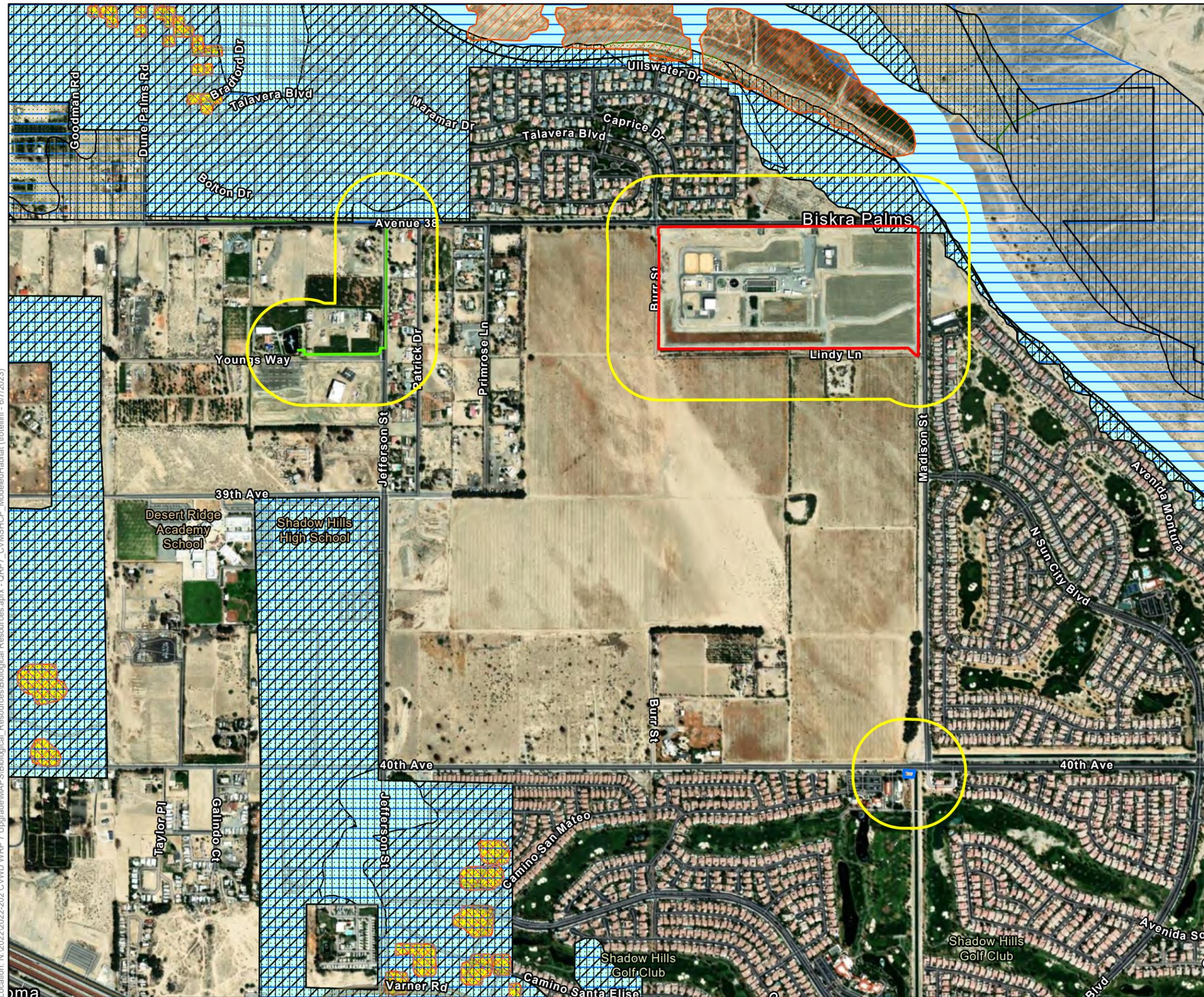
No Impact.

The City has no local policies or ordinances that would pertain to the protection of biological resources other than the implementation of the CVMSHCP. Additionally, the City has no ordinances regarding the preservation of trees. No portions of the Project Area occur within an unincorporated area of Riverside County and are located above 5,000 feet in elevation and, therefore, implementation of the Proposed Project would not conflict with Riverside County Ordinance No. 559, which prohibits the removal of living native trees. No other jurisdiction has tree preservation policies. No impact would occur. Therefore, the Proposed Project would not conflict with any local policies or ordinances protecting biological resources.

Would the Project:	Potentially Significant Impact	Project Impact Adequately Addressed in SMP PEIR	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Less than Significant Impact.

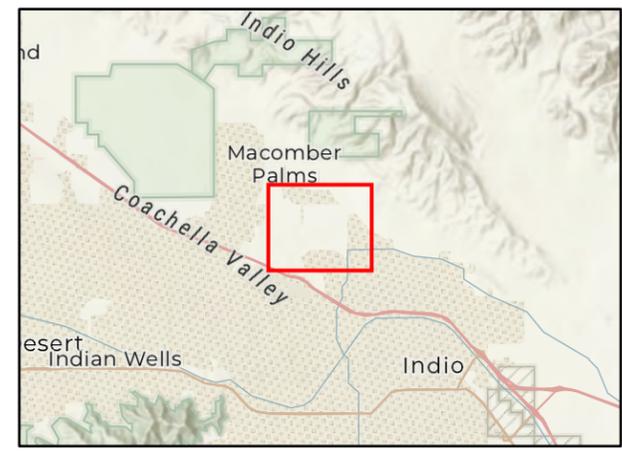
The Proposed Project falls within the CVMSHCP planning area and the Coachella Valley Water District Jurisdiction. The CVMSHCP designates 21 Conservation Areas within its Planning area which have increased protections for covered species. The Proposed Project is not within a Conservation Area but does overlap within areas designated as CVMSHCP-modeled habitat for six wildlife species (Figure 7). Four of these six species are protected under the CVMSHCP and have low to moderately suitable habitat present in the Project Area and the immediate surrounding area (Figure 8). Because the Proposed Project falls within the CVMSHCP planning area, the Project activity is covered through CVWD’s incidental take permit and permittee obligations in the CVMSHCP, while impacts to any species covered by the CVMSHCP are authorized and offset through the implementation of the CVMSHCP goals and objectives. At the time of construction, CVWD would ensure compliance with the CVMSHCP and continue to be an abiding permittee, and therefore, impacts to covered species would be less than significant.



Map Contents

- Project Area
- MP 113.2 Pump Station
- 500-ft Buffer
- Pipeline Alignment
- Coachella Giant Sand Treader Cricket and Fringe Toed Lizard
- Flat-tailed Horned Lizard
- Crissal Thrasher
- Le Conte's Thrasher
- Least Bell's Vireo
- Palm Springs Ground Squirrel
- Palm Springs Pocket Mouse
- Yellow Warbler
- Yellow-breasted Chat

Sources: ESRI, CVMSHCP
Other Related Info if Needed

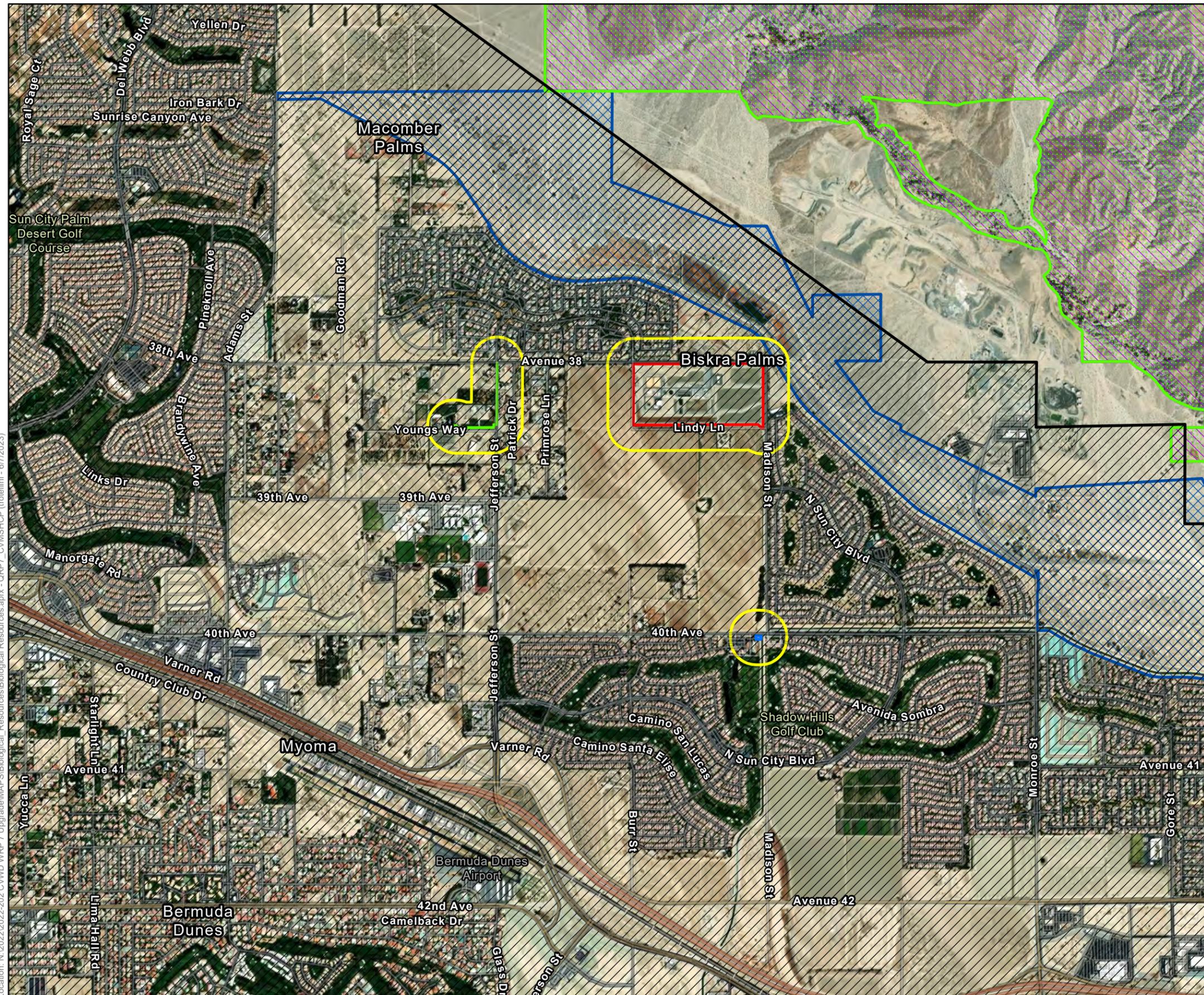


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Map Date: 5/30/2023



Figure 7. CVMSHCP Designations - Modeled Species Habitat



Map Contents

- Project Area
- MP 113.2 Pump Station
- 500-ft Buffer
- Pipeline Alignment
- Coachella Valley Water District Jurisdiction

CVMSHCP Designations

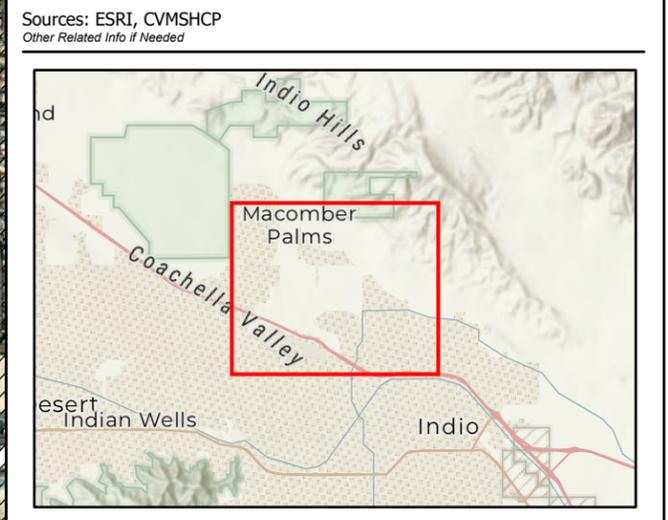
Biological Corridor Linkages

- Indio Hills Palms Conservation Area

Conservation Areas

- East Indio Hills Conservation Area
- Indio Hills Palms Conservation Area

Sources: ESRI, CVMSHCP
Other Related Info if Needed



Location: N:\2022\2022-202 CVWD WRP 7 Upgrade\MAPS\Biological_Resources.aprx - ORP7_CVMSHCP (trotellini - 6/7/2023)

Map Date: 6/7/2023

Figure 8. CVMSHCP Designations
2022-202 CVWD WRP 7 Phase 1 NPW Improvements Project

4.4.3 Mitigation Measures

BIO-PS-1: Burrowing Owl Presence/Absence. If, during the pre-construction Burrowing Owl Surveys, burrows onsite are determined to be unoccupied, construction may proceed without the preparation of a Burrowing Owl Plan. If the surveys determine the presence of burrowing owls, a Burrowing Owl Plan consistent with the guidance in the CDFW Staff Report on Burrowing Owl Mitigation (CDFW 2012) shall be prepared and implemented. The Burrowing Owl Plan shall describe proposed avoidance, minimization, mitigation, and monitoring actions. The Burrowing Owl Plan shall include the number and location of occupied burrow sites, acres of burrowing owl habitat that will be impacted, details of site monitoring, and details on proposed buffers and other avoidance measures if avoidance is proposed. If impacts to occupied burrowing owl habitat or burrow cannot be avoided, the Burrowing Owl Plan shall also describe minimization and relocation actions that will be implemented. Proposed implementation of burrow exclusion and closure should only be considered as a last resort, after all other options have been evaluated. If impacts to occupied burrows cannot be avoided, information shall be provided regarding adjacent or nearby suitable habitat available to owls along with proposed relocation actions. ~~mitigation in accordance with the CDFW shall be implemented as follows:~~

If passive relocation actions ~~If burrowing owls are identified as being resident onsite outside the breeding season (September 1 to February 14) are determined to be necessary, coordination with CDFW will occur prior to the initiation of relocation activities. ~~they may be relocated to other sites by an approved permitted biologist (permitted approved by CDFW) or passive relocation in coordination with CDFW, as allowed in the CDFW Staff Report on Burrowing Owl Mitigation (CDFW 2012).~~~~

If an active burrow is found during the breeding season, the Burrowing Owl Plan shall be implemented and the burrow shall be treated as a nest site, and temporary fencing or staking with flagging shall be installed at a distance from the active burrow, to be determined by the biologist in accordance with the Burrowing Owl Plan, to prevent disturbance during grading or construction. Installation and removal of the fencing shall be done with a biological monitor present.

~~Active relocation and eviction/passive relocation require the preservation and maintenance of suitable burrowing owl habitat determined through coordination with the Wildlife Agencies.~~

BIO-PS-2: Pre-construction Bat Surveys. Prior to the initiation of Project activities within ~~300~~ 500 feet of identified potentially suitable bat roosting habitat within the Study Area, a focused bat habitat assessment ~~pre-construction bat surveys~~ will be conducted by a qualified bat biologist. ~~The pre-construction surveys~~ bat habitat assessment will examine existing structures and trees within the Study Area that have features suitable for day roosting and/or night roosting. Suitable bat roosting features for trees (e.g., large tree cavities, basal hollows, loose or peeling bark, palm trees with intact thatch, etc.) and existing man-made structures

(e.g., crevices and cracks commonly 0.5 to 4.0 inches wide, with an orientation shielded from wind and rain from above and allows entry from below or to the side; crevices with filler materials that create additional roosting surfaces, temperature regimes, and shelter) will be documented and the area around these features will be searched for bats and bat sign (guano, staining, culled insect parts) prior to project initiation.

If suitable bat-roosting habitat with potential roost sites is found during the bat habitat assessment, pre-construction surveys shall occur no more less than 30 days prior to the initiation of Project activities, regardless of the time of year. During the preconstruction surveys, the qualified bat biologist will inspect all structures proposed for disturbance for evidence of bat occupation. Visual inspections shall focus on the identification of bat sign (i.e., individuals, guano, urine staining, corpses, feeding remains, scratch marks and bats squeaking and chattering). If evidence of bat occupation is observed during the preconstruction survey and/or the structure is unable to be sufficiently inspected to determine occupation, the preconstruction survey will also include a nighttime emergence survey component. Bat detectors, bat call analysis, and visual observation shall be used during all nighttime surveys. Nighttime emergence surveys shall be conducted by a qualified bat biologist under appropriate weather conditions and moon phase. These surveys will inform the current size and composition of the roosting colony at a given structure at the time of Project activities and may dictate any modifications to the avoidance measures provided.

- a) If no evidence of bat occupation of the structure is identified during the surveys and the qualified bat biologist determines that roosting bats are unlikely to be affected by the Project activities slated to occur beneath, on, or adjacent to the structure, then Project activities may proceed as planned without a biological monitor.
- b) If evidence of bat occupation is identified during surveys and/or the emergence survey determines that bats are occupying the structure, the qualified bat biologist will identify the bats to the species level and evaluate the colony to determine its size and significance. Maternity roosts and hibernacula shall not be evicted, excluded, removed, or disturbed. The qualified bat biologist will then provide additional measures to avoid impacts to roosting bats.
- c) If bats are determined to be day roosting in the structure during the preconstruction surveys, and construction is scheduled during the bat maternity season (April 1 through August 31), construction activities at the structure shall be postponed until after August 31 and the measures outlined below will apply:
 - i. A no-work buffer as determined by the qualified bat biologist shall be established. The size of the buffer shall be determined by the qualified bat biologist based on the species present and type of roost. Monitoring of Project activities shall be conducted by a qualified bat biologist.

- ii. Night lighting shall be used only on the portion of the structure actively being worked on and focused on the direct area of work.
- iii. Airspace access to and from the roost features of the structure shall not be obstructed except in direct work areas.
- iv. To the extent practicable, internal combustion equipment such as generators and vehicles are not to be parked or operated beneath or adjacent to the structures unless they are required for Project-related work on that structure.
- v. Construction personnel shall not be present in non-active areas beneath the structure.
- vi. In the case of daytime Project activities, if the biological monitor determines that construction activities are causing day-roosting bats to leave the roost during daytime hours, the monitor shall stop that construction activity immediately and for the remainder of the day. This will allow any bats that may be roosting in that structure to leave that section of the roost that evening, and work may resume the following morning with a monitor present.
- vii. In the case of nighttime Project activities on or adjacent to structures identified as night roosts, if the biological monitor determines that construction activities are causing bats to not return for night roosting or altering foraging behavior, the monitor shall stop that construction activity immediately and for the remainder of the night. This will allow any bats to return for night roosting the same night and work may resume the following night with a monitor present.
- viii. If deemed necessary by the qualified bat biologist, additional avoidance measures (such as a sound blanket) may be implemented before activities within the vicinity resume.

BIO-PS-3: Nighttime Work Avoidance. Avoid night work at all structures where night roosting has been identified. If avoiding night work is impossible, further minimization measures such as those listed below will be necessary.

- a) Night lighting shall be used only on areas actively being worked on and focused on the direct area of work.
- b) Airspace access to and from the roost features of the structure shall not be obstructed except in direct work areas.
- c) To the extent practicable, internal combustion equipment such as generators and vehicles are not to be parked or operated beneath or adjacent to the potential roosting structures unless they are required for Project-related work on that structure.

- d) Construction personnel shall not be present in non-active areas beneath the structures or vegetation designated as bat roosting habitat.
- e) Project construction activities shall, to the extent feasible, avoid the period of 1.5 hours prior to dawn and the period of 1.5 hours after dusk when bats and many nocturnal and crepuscular wildlife species are most active.

BIO-PS-4: Cliff Swallow Nest Avoidance. Some bat species may roost in cliff swallow nests at any time of year. The removal of cliff swallow nests shall be avoided to the greatest extent feasible. If cliff swallow nests must be removed, prior to removal they should shall first be observed to confirm that cliff swallows are not using the nests in accordance with Mitigation Measure BIO-5. To avoid impacts to bats, each nest shall be inspected by a qualified bat biologist experienced in inspecting mud nests, with a borescope inspection camera or similar device. If the qualified biologist, while inspecting mud nests, detects bats using mud nests as roosting habitat, the mud nests will not be disturbed while bats are present. Mud nests used by bats may be inspected by a qualified bat biologist and removed at night (i.e., beginning approximately 1.5 hours after sunset to avoid disrupting the emergence) when bats typically leave the roost to forage. Only the qualified biologist may remove mud nests, be removed by, or under the direct supervision of a CDFW-approved bat biologist with a Scientific Collecting Permit from CDFW to handle bats, and in such a way that the nest is kept intact and not dropped to the ground until it can be inspected by the biologist. Swallow nest removal shall follow the guidance provided by the California Bat Working Group (CBWG) Bats in Swallow Nests resource (CBWG 2022). Specific avoidance and minimization measure shall include, but are not limited to, performing mud-nest removals between September 15 and October 31, after young are volant but before expected onset of seasonal torpor; removing previously occupied nests only if that night's weather conditions exclude severe winds, precipitation, or nighttime temperatures below 45 degrees Fahrenheit; and avoiding removals during the hibernation season, which typically begins in November or December depending on weather conditions and continues through mid-February. Nest-removal during the winter may occur at the discretion of the qualified bat biologist if the forecast excludes the weather conditions described above.

BIO-PS-5: Tree Avoidance and Removal Process. If trees are scheduled to be removed (e.g., relocating)/modified (i.e., trimming) and determined to be suitable for bat roosting or if work is expected to occur within 100 feet of suitable trees, these activities ~~should~~ shall be scheduled between September 15 and October 31 to minimize direct impacts to roosting bats. This time period is after young are volant (flying) but before expected onset of torpor (wintering inactivity). Tree removal, relocation, or maintenance work may also be conducted between February 15 and March 31, following winter torpor and prior to the start of the maternity season. No tree removals, relocations, or maintenance shall occur during the hibernation season, which typically begins in November or December (depending on weather conditions) and continues through mid-February, due to the high potential for mortality of hibernating bats. Depending on weather conditions and the best professional

judgement of a qualified bat biologist approved by CDFW, tree removal, relocation, or maintenance work may be performed in November if the forecasted nighttime low temperatures on the evening of removal and the subsequent four evenings do not drop below 45°F. In November, if weather is cold (i.e., forecasted nighttime low temperatures reach 45°F or less for that evening and the next four evenings), then no tree removals, relocations, or maintenance shall be performed. February 28 to avoid the maternity season and when evening temperatures are not below 45 degrees Fahrenheit and rain is not over 0.5 inch in 24 hours.

If tree removal/modification or work within 100 feet of suitable trees must occur during the maternity season, a qualified bat biologist shall conduct a focused emergence survey(s) of the tree(s) within 48 hours of scheduled work. If a maternity roost is located, whether solitary or colonial, that roost will remain undisturbed until after the maternity season or until a qualified biological monitor has determined the roost is no longer active.

If work is expected to occur outside of the bat maternity season (during conditions that meet the parameters described above), work adjacent to trees suitable as bat habitat can continue without additional surveying efforts. If trees with suitable bat roosting habitat are scheduled for removal or relocation during this time frame, removal using the two-step method should be conducted:

1. As much as feasible, vegetation and trees within the area that are not suitable for roosting bats will be removed first to provide a disturbance that might reduce the likelihood of bats using the habitat.
2. Two-step tree removal will occur over two consecutive days under the supervision of a qualified bat biologist. On Day 1, small branches and small limbs containing no cavity, crevice or exfoliating bark habitat on habitat trees (or ~~outer~~ live fronds above the frond skirt in the case of palm trees), as identified by a qualified bat biologist are removed first, using chainsaws only (i.e., no dozers, backhoes). The following day (Day 2), the remainder of the tree is to be felled/removed. (The intention of this method is to disturb the tree with noise and vibration and branch removal on Day 1. This should cause any potentially present day-roosting bats to abandon the roost tree after they emerge for nighttime foraging. Removing the tree quickly the next consecutive day should avoid reoccupation of the tree by bats.)

4.5 Cultural Resources

The analysis of cultural resources is tiered from the 2020 SMP PEIR and was addressed in Section 4.3, Cultural Resources, of that document.

ECORP prepared a Historic Property Identification Report (HPIR) for the Proposed Project to identify potentially eligible cultural resources (i.e., archaeological sites and historic buildings, structures, and objects) that could be affected by the Project (ECORP 2023). The HPIR included a records search, literature review, Sacred Lands File (SLF) search with Tribal outreach, and a field survey. The HPIR fulfills the 2020

SMP PEIR Mitigation Measure CUL-1 which requires a project-specific CEQA-compliant Phase I Cultural Resources Study. Cultural resources include prehistoric archaeological sites, historic archaeological sites, and historic structures, and generally consist of artifacts, food waste, structures, and facilities made by people in the past. Prehistoric archaeological sites are places that contain the material remains of activities carried out by the native population of the area (i.e., Native Americans) prior to the arrival of Europeans in Southern California. Places that contain the material remains of activities carried out by people during the period when written records were produced after the arrival of Europeans are considered historic archaeological sites. Historic structures include houses, garages, barns, commercial structures, industrial facilities, community buildings, and other structures and facilities that are more than 50 years old. Historic structures may also have associated archaeological deposits, such as abandoned wells, cellars, privies, refuse deposits, and foundations of former outbuildings.

The information provided below is an abridged version of the HPIR and is included here to provide a brief context of the potential cultural resources in the Project Area. The records search results for the initial WRP Tertiary treatment Improvement Project indicated that two previous cultural resources studies were conducted within the initial Project Area. As a result of those studies, no sites or isolates were previously recorded within the initial Project Area. ECORP submitted an additional records search request to cover the additional Project Areas; however, the results are still pending as of the date of this report. To compensate for this data gap, ECORP also reviewed known cultural resources inventories completed within the past 5 years, with search radius boundaries that overlap with the new Project search radius, for any potential previously recorded cultural studies and/or resources. As a result of this additional review, two previous cultural studies were found which fall within the record search radius half mile buffer for the Young's Farmland pipeline alignment.

The following applicable mitigation measures were adopted as part of the 2020 SMP PEIR and are incorporated as part of the Proposed Project and assumed in the analysis presented in this section.

CUL-1: For projects located within Known High-Sensitivity areas and Assumed High-Sensitivity areas, a qualified archaeologist shall conduct a project-specific CEQA-compliant Phase I Cultural Resources Study for inclusion in the project-specific CEQA document. The study shall include a records search at the applicable archaeological Information Center, a search of the Sacred Lands File by NAHC, and a field survey using standard archaeological methods. These studies shall occur during the project-specific CEQA process.

For projects located within Low-Sensitivity areas a project-specific CEQA-Compliant Phase I Cultural Resources Study shall be conducted by a qualified archaeologist. However, because these areas have been subject to previous assessment, the CVWD may be able to utilize data from previous studies to reduce the effort necessary for a proposed project. Whether or not data from previous studies can be used to reduce study efforts will be dependent on the scope, methods, and age of the previous studies. These studies shall occur during the project-specific CEQA process.

CUL-2: If subsurface deposits believed to be cultural or human in origin are discovered during construction, all work must halt within a 100-foot radius of the discovery. A qualified

professional archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards for pre-contact and historic archaeologist, shall be retained to evaluate the significance of the find, and shall have the authority to modify the no-work radius as appropriate, using professional judgment. The following notifications shall apply, depending on the nature of the find:

- If the professional archaeologist determines that the find does not represent a cultural resource, work may resume immediately, and no agency notifications are required.
- If the professional archaeologist determines that the find does represent a cultural resource from any time period or cultural affiliation, he or she shall immediately notify the Lead Agency, and applicable landowner. The agencies shall consult on a finding of eligibility and implement appropriate treatment measures, if the find is determined to be a Historical Resource under CEQA, as defined in Section 15064.5(a) of the CEQA Guidelines. Work may not resume within the no-work radius until the lead agencies, through consultation as appropriate, determine that the site either: 1) is not a Historical Resource under CEQA, as defined in Section 15064.5(a) of the CEQA Guidelines; or 2) that the treatment measures have been completed to their satisfaction.
- If the find includes human remains, or remains that are potentially human, he or she shall ensure reasonable protection measures are taken to protect the discovery from disturbance (AB 2641). The archaeologist shall notify the appropriate County Coroner (per § 7050.5 of the Health and Safety Code). The provisions of § 7050.5 of the California Health and Safety Code, § 5097.98 of the California Public Resources Code, and Assembly Bill (AB) 2641 will be implemented. If the Coroner determines the remains are Native American and not the result of a crime scene, the Coroner will notify the NAHC, which then will designate a Native American Most Likely Descendant (MLD) for the project (§ 5097.98 of the Public Resources Code). The designated MLD will have 48 hours from the time access to the property is granted to make recommendations concerning treatment of the remains. If the landowner does not agree with the recommendations of the MLD, the NAHC can mediate (§ 5097.94 of the Public Resources Code). If no agreement is reached, the landowner must rebury the remains where they will not be further disturbed (§ 5097.98 of the Public Resources Code). This will also include either recording the site with the NAHC or the appropriate Information Center; using an open space or conservation zoning designation or easement; or recording a reinternment document with the county in which the property is located (AB 2641). Work may not resume within the no-work radius until the lead agencies, through consultation as appropriate, determine that the treatment measures have been completed to their satisfaction.

4.5.1 Environmental Setting

The entire Project Area consists of three separate Project Areas (the WRP No. 7 Tertiary Treatment facility, Project Area A; the MP 113.2 Pump Station, Project Area B; and the pipeline alignment, Project Area C) totaling approximately 69.78 acres of property and 2,159.5 feet of pipeline alignment. The entire Project Area is located in the northern half of the northeastern quarter of Section 4, the northeastern quarter of the northeastern quarter of Section 5, and the northeastern quarter of the northeastern quarter of Section 9 of Township 5 South, Range 7 East, San Bernardino Base and Meridian as depicted on the 1958 Myoma, California USGS 7.5-minute topographic quadrangle map. The Project Area includes seven parcels: APNs 691-100-029 and 691-100-030, which are located south of Avenue 38, north of Lindy Lane, west of Madison Street, and east of Burr Street; APN 691-180-006, which is south of Avenue 40 and west of Madison Street, adjacent to the canal; APN 691-050-021, which is at the western end of Young's Way; and APNs 691-060-010, 691-050-010, and 691-050-012, the Young's Farmland property (ECORP 2023).

4.5.1.1 Area of Potential Effects

The Area of Potential Effects (APE) consists of the horizontal and vertical limits of a project and includes the area within which significant impacts or adverse effects to Historical Resources or Historic Properties could occur as a result of the project. The APE is defined for projects subject to regulations implementing Section 106 (federal law and regulations). For projects subject to CEQA review, the term Project Area is used rather than APE. The terms Project Area and APE are interchangeable for the purpose of this document.

The horizontal APE consists of all areas where activities associated with a project are proposed and, in the case of this Project, equals the Project Area subject to environmental review under the National Environmental Policy Act (NEPA) and CEQA. This includes areas proposed for construction, vegetation removal, grading, trenching, stockpiling, staging, paving, and other elements in the official Project description. The horizontal APE is illustrated in Figure 1 and represents the survey coverage area. Project Area A is approximately 69.62 acres and measures 0.48 mile long by 0.23 mile wide. Project Area B is approximately 0.16 acres and measures approximately 113 feet long by 76 feet wide. Project Area C, the Pipeline Alignment, measures 2,159.5 feet long by 50 feet wide.

The vertical APE is described as the maximum depth below the surface to which excavations for project foundations and facilities will extend. Therefore, the vertical APE for this Proposed Project includes all subsurface areas where archaeological deposits could be affected. The subsurface vertical APE varies across the Project Areas. The maximum depth is assumed to extend as deep as 20 feet below the current surface, which is typically the greatest depth for buried utilities; therefore, a review of geologic and soils maps was necessary to determine the potential for buried archaeological sites that cannot be seen on the surface.

The vertical APE also is described as the maximum height of structures that could impact the physical integrity and integrity of setting of cultural resources, including districts and traditional cultural properties. For this Project, the above-surface vertical APE is assumed to be less than 50 feet above the surface.

4.5.2 Regulatory Setting

4.5.2.1 National Historic Preservation Act

The federal law that covers cultural resources that could be affected by federal undertakings is the National Historic Preservation Act (NHPA) of 1966, as amended. Section 106 of the NHPA requires that federal agencies take into account the effects of a federal undertaking on properties listed in or eligible for the National Register of Historic Places (NRHP). The agencies must afford the Advisory Council on Historic Preservation (ACHP) a reasonable opportunity to comment on the undertaking. The NHPA pertains to projects that entail some degree of federal funding or permit approval. The regulations that stipulate the procedures for complying with Section 106 are in 36 Code of Federal Regulations (CFR) 800.

The federal agency must seek comment from the State Historic Preservation Officer (SHPO) and, in some cases, the ACHP, for its determinations of eligibility, effects, and proposed mitigation measures. Section 106 procedures for a specific project can be modified by negotiation of a Memorandum of Agreement or Programmatic Agreement between the federal agency, the SHPO, and, in some cases, the project proponent.

Effects to a cultural resource are potentially adverse if the lead federal agency, with the SHPO's concurrence, determines the resource eligible for the NRHP, making it a Historic Property, and if application of the Criteria of Adverse Effects (36 CFR 800.5[a][2] et seq.) results in the conclusion that the effects will be adverse.

4.5.2.2 California Environmental Quality Act

CEQA is the state law that applies to a project's impacts on cultural resources. A project is an activity that may cause a direct or indirect physical change in the environment and that is undertaken or funded by a state or local agency, or requires a permit, license, or lease from a state or local agency. CEQA requires that impacts to Historical Resources be identified and, if the impacts will be significant, then apply mitigation measures to reduce the impacts.

A Historical Resource is a resource that 1) is listed in or has been determined eligible for listing in the California Register of Historical Resources (CRHR) by the State Historical Resources Commission, or has been determined historically significant by the CEQA lead agency because it meets the eligibility criteria for the CRHR, 2) is included in a local register of historical resources, as defined in PRC 5020.1(k), or 3), and has been identified as significant in a historical resources survey, as defined in PRC 5024.1(g) (CCR Title 14, Section 15064.5(a)). Significant cultural resources must meet at least one of four criteria that define eligibility for listing on the CRHR (PRC § 5024.1, Title 14 CCR, § 4852).

Impacts to a Historical Resource, as defined by CEQA (listed in an official historic inventory or survey or eligible for the CRHR), are significant if the resource is demolished or destroyed or if the characteristics that made the resource eligible are materially impaired (CCR Title 14, Section 15064.5(b)). Demolition or alteration of eligible buildings, structures, and features that they would no longer be eligible would result in a significant impact. Whole or partial destruction of eligible archaeological sites would result in a significant impact. In addition to impacts from construction resulting in destruction or physical alteration

of an eligible resource, impacts to the integrity of setting (sometimes termed *visual impacts*) of physical features in the Project Areas could also result in significant impacts.

Tribal cultural resources (TCRs) are defined in Section 21074 of the California PRC as sites, features, places, cultural landscapes (geographically defined in terms of the size and scope), sacred places, and objects with cultural value to a California Native American tribe that are either included in or determined to be eligible for inclusion in the CRHR, or are included in a local register of historical resources as defined in subdivision (k) of Section 5020.1, or are a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Section 5024.1. Section 1(b)(4) of AB 52 established that only California Native American tribes, as defined in Section 21073 of the California PRC, are experts in the identification of TCRs and impacts thereto. Because ECORP does not meet the definition of a California Native American tribe, it only addresses information in this report for which it is qualified to identify and evaluate, and that which is needed to inform the cultural resources section of CEQA documents. This report, therefore, does not identify or evaluate TCRs. Should California Native American tribes ascribe additional importance to or interpretation of archaeological resources described herein, or provide information about non-archeological TCRs, that information is documented separately in the AB 52 tribal consultation record between the tribe(s) and lead agency and summarized in the TCRs section of the CEQA document, if applicable.

4.5.3 Methods

4.5.3.1 Records Search

ECORP requested an initial records search at the Eastern Information Center (EIC) of the California Historical Resources Information System (CHRIS) at the University of California, Riverside on August 31, 2022. The purpose of the records search was to determine the extent of previous surveys within a 0.5-mile (800-meter) radius of the initial Proposed Project Area, the WRP No. 7 Tertiary Treatment facility (Project Area A), and whether previously documented pre-contact or historic archaeological sites, architectural resources, or traditional cultural properties exist within this area. EIC staff completed and returned the records search to ECORP on October 14, 2022.

Because additional Project components, the pump station (Project Area B) and pipeline (Project Area C), were added to the Project in early 2023, ECORP submitted a second records search request on April 25, 2023, to include the expanded EIC record search boundary, which included a 0.5-mile (800-meter) radius around these new Project Areas. ~~Currently, the results of this second request is still pending. ECORP staff completed the records search in-person August 16 and September 26, 2023. ECORP supplemented this report with data from earlier EIC Records searches that overlap portions of the new Proposed Project Areas.~~

Record search results found that ~~1626~~ previous cultural resource investigations have been conducted within the Project Areas or the 0.5-mile search radius, covering approximately 55 percent of the total area surrounding the Project Areas within the records search radius. Of the ~~1626~~ studies, ~~four~~7 were conducted within the Project Areas and the other ~~1219~~ were within the 0.5-mile radius. These studies revealed the presence of pre-contact sites, including lithic scatters, debitage, manos, ~~and~~ metates, precontact ceramics,

shells, bones, and fire-affected rocks and one five historical site, the Coachella Canal built resources related to homes, and irrigation. The previous studies were conducted between 1979 and 2018 and vary in size from less than 1 acre to approximately 1,000 acres.

The records search also determined that ~~four~~³⁹ previously recorded pre-contact and historic-era cultural resources are located within 0.5 mile of the Project Area. Of these, ~~three~~¹⁰ are believed to be associated with Native American occupation of the vicinity, and ~~one is a~~ five are historic-era sites associated with early European-American irrigation, known as the Coachella Canal. There are also 22 precontact isolated finds, and 2 historic-period isolated finds. There are no previously recorded cultural resources within the Project Area (ECORP 2023).

4.5.3.2 Sacred Lands File

In addition to the records search, ECORP contacted the California Native American Heritage Commission (NAHC) on August 31, 2022, to request a search of the Sacred Lands File for the initial Project Area (Project Area A), and requested a second search request as requested by California State Water Resources Control Board on April 24, 2023. The searches determine whether the California Native American tribes within the Project Areas have recorded Sacred Lands, because the Sacred Lands File is populated by members of the Native American community with knowledge about the locations of tribal resources. In requesting a search of the Sacred Lands File, ECORP solicited information from the Native American community regarding TCRs, but the responsibility to formally consult with the Native American community lies exclusively with the federal and local agencies under applicable state and federal laws.

A search of the Sacred Lands File by the NAHC dated October 3, 2022, failed to indicate the presence of Native American Tribal Cultural Resources in the initial Project Area (Project Area A). A second search of the Sacred Lands File by the NAHC dated May 15, 2023, failed to indicate the presence of Native American Tribal Cultural Resources in the updated Project Areas (Project Areas A, B, and C) (ECORP 2023).

4.5.3.3 Field Survey

On June 15, 2023, ECORP completed an intensive pedestrian survey of the Project Area under the guidance of the *Secretary of the Interior's Standards for the Identification of Historic Properties* (National Park Service [NPS] 1983) using 15-meter-spaced transects. ECORP examined the ground surface for indications of surface or subsurface cultural resources and inspected the general morphological characteristics of the ground surface for indications of subsurface deposits that may be manifested on the surface, such as circular depressions or ditches. Whenever possible, ECORP examined the locations of subsurface exposures caused by such factors as rodent activity, water or soil erosion, or vegetation disturbances for artifacts or for indications of buried deposits. ECORP did not conduct subsurface investigations or artifact collections during the pedestrian survey.

As a result of the field survey, one new cultural resource was identified within Project Area C: WRP-1, a segment of Jefferson Street. The resource was evaluated as not eligible for listing under any criteria for the NRHP or the CRHR (ECORP 2023).

4.5.4 Cultural Resources Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Project Impact Adequately Addressed in SMP PEIR	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Less than Significant Impact.

The CHRIS records search results revealed that ~~four~~³⁹ previously recorded pre-contact and historic-era cultural resources are located within 0.5 mile of the Project Area. Of these, ~~three~~¹⁰ are believed to be associated with Native American occupation of the vicinity, and ~~one is a~~ five are historic-era sites ~~associated with early European-American irrigation, known as the Coachella Canal.~~ There are also 22 precontact isolated finds, and 2 historic-period isolated finds. There are no previously recorded cultural resources within the Project Area (ECORP 2023).

As a result of the field survey, one new cultural resource was identified within Project Area C: WRP-1, a segment of Jefferson Street. Resource WRP-1 has been evaluated using NRHP and CRHR eligibility criteria and found to be not eligible for listing in the NRHP or CRHR under any criteria (ECORP 2023). Therefore, neither resource is considered a historical resource under CEQA or a historic property under Section 106 of the NHPA. Impacts would be less than significant and no mitigation is required.

Would the Project:	Potentially Significant Impact	Project Impact Adequately Addressed in SMP PEIR	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Less than Significant with Mitigation Incorporated.

Due to presence of aeolian dunes capable of covering sites and altering waterways, as well as the presence of alluvium along desert washes and the likelihood of pre-contact archaeological sites located along perennial waterways and on the shore of ancient Lake Cahuilla, there is a potential for buried pre-contact archaeological sites in the area. However, due to the extensive grading and heavy disturbance within the entire Project Area, the potential is considered low to moderate for buried pre-contact archaeological sites (ECORP 2023).

There always remains the potential for ground-disturbing activities to expose previously unrecorded cultural resources. Both CEQA and Section 106 of the NHPA require the lead agency to address any unanticipated cultural resource discoveries during Project construction (ECORP 2023). Implementation of Mitigation Measures CUL-1 and CUL-2, from the 2020 SMP PEIR, and Mitigation Measure CUL-PS-1 and CUL-PS-2 would reduce impacts to less than significant.

Would the Project:	Potentially Significant Impact	Project Impact Adequately Addressed in SMP PEIR	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Less than Significant with Mitigation Incorporated.

No formal cemeteries are located in or near the Project Area. Most Native American human remains are found in prehistoric archaeological sites. No impacts to human remains are anticipated; however, if any are encountered during ground disturbing construction activities, existing regulations (§7050.5 of the California Health and Safety Code, §5097.98 of the California Public Resources Code, and AB 2641) are in place which detail the actions that must be taken if such discoveries are made. Implementation of Mitigation Measure CUL-2, from the 2020 SMP PEIR, and Mitigation CUL-PS-2 would reduce impacts to less than significant.

4.5.5 Mitigation Measures

CUL-PS-1: Archaeological and Tribal Monitoring. Prior to the start of construction, the Project proponent shall retain a qualified professional archaeologist or tribal monitor representing a culturally affiliated tribe to monitor all ground-disturbing activities associated with undisturbed soils during Project construction. Monitoring is not required for placement of equipment, filling in excavations that were monitored, work conducted in previously excavated and graded soils such as WRP 7, above-ground construction activities, or redistribution of soils that were previously monitored (such as the return of stockpiles to use in backfilling). ~~At the discretion of the lead agency, b~~Both a professional archaeologist and tribal monitor may be required to monitor ground-disturbing activities associated with known sensitive areas of the Project during construction or in the instance of unanticipated discoveries.

The archaeologist shall meet, or work under the direct supervision of someone who meets, the Secretary of the Interior’s professional qualifications standards for prehistoric and historic archaeology. The archaeologist and tribal monitor shall have the authority to temporarily halt ground-disturbing or construction-related work within 100 feet of any discovery of potential historical or archaeological resources in order to implement any appropriate Project-specific mitigation measures developed to address unanticipated discoveries.

CUL-PS-2: Post-Review Discoveries. If subsurface deposits believed to be cultural or human in origin are discovered during construction, all work must halt within a 100-foot radius of the discovery. A qualified professional archaeologist, meeting the Secretary of the Interior’s Professional Qualification Standards for prehistoric and historic archaeology, shall be retained to evaluate the significance of the find, and shall have the authority to modify the no-work radius as appropriate, using professional judgment and taking into account the

opinion of the tribal monitor. The following notifications shall apply, depending on the nature of the find:

- If the professional archaeologist determines that the find does not represent a cultural resource, work may resume immediately, and no agency notifications are required.
- If the professional archaeologist determines that the find does represent a cultural resource from any time period or cultural affiliation, the archaeologist shall immediately notify the lead agencies. The agencies shall consult on a finding of eligibility and implement appropriate treatment measures, if the find is determined to be a Historical Resource under CEQA, as defined in Section 15064.5(a) of the CEQA Guidelines or a historic property under Section 106 NHPA, if applicable. Work may not resume within the no-work radius until the lead agencies, through consultation as appropriate, determine that the site either: 1) is not a Historical Resource under CEQA or a Historic Property under Section 106; or 2) that the treatment measures have been completed to their satisfaction.
- If the find represents a Native American or potentially Native American resource that does not include human remains, then he or she shall further notify the Agua Caliente Band of Cahuilla Indians and the Augustine Band of Cahuilla Indians. The agencies shall consult with the tribes on a finding of eligibility and implement appropriate treatment measures, if the find is determined to be a Historical Resource under CEQA, as defined in Section 15064.5(a) of the CEQA Guidelines. Preservation in place is the preferred treatment, if feasible. Work may not resume within the no-work radius until the lead agencies, through consultation as appropriate, determine that the site either: 1) is not a Historical Resource under CEQA, as defined in Section 15064.5(a) of the CEQA Guidelines; or 2) that the treatment measures have been completed to their satisfaction.
- If the find includes human remains, or remains that are potentially human, they shall ensure reasonable protection measures are taken to protect the discovery from disturbance (AB 2641). The archaeologist shall notify the Riverside County Coroner (per Section 7050.5 of the Health and Safety Code). The provisions of Section 7050.5 of the California Health and Safety Code, Section 5097.98 of the California PRC, and AB 2641 will be implemented. If the coroner determines the remains are Native American and not the result of a crime scene, the coroner will notify the NAHC, which then will designate a Native American Most Likely Descendant (MLD) for the Project (Section 5097.98 of the PRC). The designated MLD will have 48 hours from the time access to the property is granted to make recommendations concerning treatment of the remains. If the landowner does not agree with the recommendations of the MLD, the NAHC can mediate (Section 5097.94 of the PRC). If no agreement is reached, the landowner must rebury the remains where they will not be further disturbed (Section 5097.98 of the PRC). This will also include either

recording the site with the NAHC or the appropriate Information Center; using an open space or conservation zoning designation or easement; or recording a reinternment document with the county in which the property is located (AB 2641). Work may not resume within the no-work radius until the lead agencies, through consultation as appropriate, determine that the treatment measures have been completed to their satisfaction.

4.6 Energy

The analysis of energy is tiered from the 2020 SMP PEIR and was addressed in Section 4.4, Energy, of that document. Sources of energy relevant to the PEIR include the equipment-fuel necessary for construction and energy usage for the treatment and pumping of wastewater.

This IS/MND analyzes energy consumption due to the potential direct and indirect environmental impacts associated with the Proposed Project. Such impacts include the depletion of nonrenewable resources (e.g., oil, natural gas, coal) and emissions of pollutants during the construction phase. The impact analysis focuses on equipment-fuel necessary for Project construction and the energy usage necessary for the Project's operation of new equipment, such as the new UV wastewater treatment system.

4.6.1 Environmental Setting

Energy relates directly to environmental quality. Energy use can adversely affect air quality and other natural resources. The vast majority of California's air pollution is caused by burning fossil fuels. Consumption of fossil fuels is linked to changes in global climate and depletion of stratospheric ozone. Transportation energy use is related to the fuel efficiency of cars, trucks, and public transportation; choice of different travel modes (auto, carpool, and public transit); vehicle speeds; and miles traveled by these modes. Construction and routine operation and maintenance of transportation infrastructure also consume energy. In addition, residential, commercial, and industrial land uses consume energy, typically through the usage of natural gas and electricity.

4.6.1.1 Energy Types and Sources

California relies on a regional power system comprised of a diverse mix of natural gas, renewable, hydroelectric, and nuclear generation resources. Natural gas provides California with a majority of its electricity, closely followed by renewables, large hydroelectric and nuclear (California Energy Commissions [CEC] 2022). The Imperial Irrigation District (IID), the sixth largest electrical utility in California serving more than 158,000 customers in Imperial County and parts of Riverside and San Diego counties, provides electrical services to the Project Area. IID utilizes megawatts of energy derived from a diverse resource portfolio that includes its own generation, and long- and short-term power purchases. Located in a region with sunshine, geothermal capacity, wind, and other renewable potential, IID has met or exceeded all Renewable Portfolio Standard requirements to date, procuring renewable energy from diverse sources including biomass, biowaste, geothermal, hydroelectric, solar, and wind (IID 2023).

4.6.2 Energy Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Project Impact Adequately Addressed in SMP PEIR	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during Project construction or operation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Less than Significant Impact.

The impact analysis focuses on the equipment-fuel necessary for Project construction and the energy usage necessary for the new UV wastewater treatment. The Proposed Project would make improvements to existing CVWD facilities and install a new linear pipeline. Addressing energy impacts requires an agency to make a determination as to what constitutes a significant impact. There are no established thresholds of significance, statewide or locally, for what constitutes a wasteful, inefficient, and unnecessary consumption of energy for a proposed land use project. The amount of fuel necessary for Project construction is calculated and compared to the most recent year of fuel consumed in Riverside County. The amount of total construction-related fuel use was estimated using ratios provided in the Climate Registry’s General Reporting Protocol for the Voluntary Reporting Program, Version 2.1 (Climate Registry 2016).

Fuel necessary for Project construction would be required for the operation and maintenance of construction equipment and the transportation of materials to the Project Area. The fuel expenditure necessary for construction of the upgrades and linear pipeline would be temporary, lasting only as long as Project construction. The Proposed Project’s gasoline fuel consumption during the one-time construction period is estimated to be 20,591 gallons over the course of construction. This would increase the annual fuel use in Riverside County by 0.0019 percent. As such, Project construction would have a nominal effect on local and regional energy supplies. No unusual Project characteristics would necessitate the use of construction equipment that would be less energy efficient than at comparable construction sites in the region or the state. Construction contractors would purchase their own gasoline and diesel fuel from local suppliers and would judiciously use fuel supplies to minimize costs due to waste and subsequently maximize profits. Additionally, construction equipment fleet turnover and increasingly stringent state and federal regulations on engine efficiency combined with state regulations limiting engine idling times and requiring recycling of construction debris, would further reduce the amount of transportation fuel demand during Project construction. For these reasons, it is expected that construction fuel consumption associated with the Proposed Project would not be any more inefficient, wasteful, or unnecessary than other similar development projects of this nature. This is a less than significant impact.

The improvements would not affect existing operations of the CVWD facilities or increase the number of traffic trips to the facility. As such, the energy utilized to function the facilities and the fuel consumption for trips to the facilities would remain the same. As a part of the improvements, the aged infrastructure

and pumps would be upgraded and expanded to accommodate the distribution of future water demand. New pumps and the associated upgraded equipment would reduce some energy consumption used to treat and pump the water. Energy calculations for wastewater treatment and distribution were made in accordance with California Energy Commission’s Refining Estimates of Water Related Energy Use in California (CEC 2006) guidance for water related energy use in California. Electricity consumption associated with water distribution in southern California is approximately 1,272 kwh/MG (CEC 2006). Overall, any major increases to energy consumption associated with the pumping and distribution of water would relate to the increases in future demand for water. Nevertheless, the proposed infrastructure improvements are necessary to accommodate the projected growth of the region, and thus, the Proposed Project would not result in the inefficient, wasteful, or unnecessary consumption of energy.

Additionally, the Project proposes the installation of a new UV water treatment process, which would replace the chlorine disinfection method that is currently used. According to U.S. Department of Energy, it is estimated that low pressure UV lamps consume 100 to 250 kWh per million gallons (MG) of water. The Project proposes future users to consume about 6.2 MG of water per day. As such, for future water demand by users, this would equal out to a conservative estimate of approximately 1,550 kwh/day as a result of the UV water treatment. However, current operation utilizes chlorine water treatment, which consumes about 60 to 250 kwh per MG of water (US Department of Energy 2021). Although this addition of UV water treatment system may have the potential to increase energy consumption, it is noted that the installation of the UV system would eliminate the cost, environmental health impacts, and lifecycle costs related to chlorine disinfection. As noted in the 2020 SMP PEIR, the proposed infrastructure improvements are necessary to accommodate the projected growth of the region, and thus, the Proposed Project would not result in the inefficient, wasteful, or unnecessary consumption of energy. Because of these reasons, this is a less than significant impact to the operational energy usage or fuel consumption as a result of the Proposed Project.

Would the Project:	Potentially Significant Impact	Project Impact Adequately Addressed in SMP PEIR	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No Impact.

The Proposed Project would be designed in a manner that is consistent with relevant energy conservation plans designed to encourage development that results in the efficient use of energy resources. The Proposed Project would be built to the Energy Efficiency Standards for Residential and Nonresidential Buildings, as specified in Title 24, Part 6, of the CCR (Title 24). Title 24 was established in 1978 in response to a legislative mandate to reduce California’s energy consumption. Title 24 is updated approximately every three years, with the most recent update of the 2022 standards that became effective on January 1, 2023. The 2022 Energy Standards improve upon the 2019 Energy Standards for new construction of, and additions and alterations to, residential and nonresidential buildings. The 2022 update to the Energy

Standards encourages efficient electric heat pumps, establishes electric-ready requirements for new homes, expands solar photovoltaic and battery storage standards, strengthens ventilation standards, among other goals. The 2022 Energy Standards build and improve upon previous goals of achieving net Zero Net Energy. Buildings permitted on or after January 1, 2023, must comply with the 2022 Standards. Compliance with Title 24 is mandatory at the time new building permits are issued by city and county governments. Additionally, in January 2010, the State of California adopted the California Green Building Standards Code (CalGreen) that establishes mandatory green building standards for all buildings in California. The code was most recently updated in 2022, effective for all applicable developments starting January 1, 2023. The code covers five categories: planning and design, energy efficiency, water efficiency and conservation, material conservation and resource efficiency, and environmental quality. With these building standards in place, the Proposed Project would not obstruct any state or local plan for renewable energy or energy efficiency.

For these reasons, this impact would be less than significant.

4.6.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.7 Geology and Soils

The analysis of geology and soils is tiered from the 2020 SMP PEIR and was addressed in Section 2.4, CEQA Overview, of that document. The 2020 SMP PEIR found impacts to geology and soils for all Master Plan projects not to be significant because sanitation facilities would be designed by registered civil engineers to ensure all necessary geotechnical constraints are considered during project design (CVWD 2022).

Analysis in this section is supplemented by the following information that is specific to the Project's environmental setting.

4.7.1 Environmental Setting

4.7.1.1 Geomorphic Setting

The City of Indio lies to the south of the Indio Hills and consist of Plio-Pleistocene sedimentary rocks of the Palm Spring and Ocotillo formations as well as younger Quaternary alluvium.

4.7.1.2 Regional Seismicity and Fault Zones

The California Department of Conservation, Division of Mines and Geology, defines an *active fault* as one that has been subjected to surface displacement within the last 11,000 years. A fault is considered *inactive* if it has not shown geologic evidence of surface displacement in the last 11,000 years.

There are three major, known faults in Riverside County: the San Andreas, San Jacinto, and Elsinore faults. The San Andreas Fault and San Jacinto Fault are two of California's most active faults. Several properties within Indio and its sphere of influence are directly impacted by the southernmost section of the San

Andreas fault and/or secondary faults and fractures (City of Indio 2019a). The South Branch of the San Andreas Fault is located approximately 1 mile north of the Project Area.

4.7.1.3 Soils

Soils in the Indio region with higher Storie Indices and capability classifications include the Coachella, Gilman, and Indio soil series, which compose approximately 57 percent of Indio's total area (City of Indio 2019a).

According to the USDA's NRCS Web Soil Survey website, six soil types are located within the Project Area (NRCS 2023a). These soil types include the following:

- Coachella fine sandy loam (CsA), 0 to 2 percent slopes;
- Gilman loamy fine sand (GaB), 0 to 5 percent slopes;
- Gilman fine sandy loam (GbA), 0 to 2 percent slopes;
- Indio fine sandy loam (Ip);
- Indio very fine sandy loam (Is); and
- Myoma fine sand (MaB), 0 to 5 percent slopes

The soil underlying the WRP 7 site was found to consist of undocumented fill, alluvial, fluvial, and eolian deposits. Due to the generally well consolidated nature of the underlying soil and lack of groundwater, liquefaction is not a design consideration. Dewatering will not be required for the planned facilities on WRP 7. Laboratory results indicate that the soil on the WRP 7 site is corrosive to buried ferrous metals and concrete, therefore all below and at grade infrastructure will be designed to be corrosion resistant. The selected concrete will be specified to conform to the appropriate American Society for Testing and Materials C150 Type V to mitigate corrosion from sulphates (Black & Veach 2022).

4.7.1.4 Paleontological Resources

The City of Indio is located in the Coachella Valley, a large southwest to southeast trending basin that is the result of the well-known San Andreas Fault system in California. Sedimentary deposition has been slowly filling this basin since the Miocene Epoch (23.0 to 5.3 million years ago). Being an area of sedimentary deposition, the potential for paleontological resources exists. Five sedimentary units in the City have the potential to contain significant paleontological resources, including the Mecca Formation, Palm Springs Formation, Canebrake Conglomerate, Older Quaternary Lake Sediments, and Ocotillo Conglomerate (City of Indio 2019a).

Riverside County's Map My County (MMC) reporting tool was used to assess the paleontological sensitivity of the Project Area. A search was conducted for Project Area using APNs. The Project Area includes seven APNs 691-100-029, 691-100-030, 691-180-006, 691-050-021, 691-060-010, 691-050-010, and 691-050-012 (Riverside County 2023a).

Paleontological sensitivity designations are defined as the following:

- Undetermined Potential (U): Areas underlain by sedimentary rocks for which literature and unpublished studies are not available have undetermined potential for containing significant paleontological resources. These areas must be inspected by a field survey conducted by a qualified vertebrate paleontologist.
- Low Potential (L): Following a literature search, records check and a field survey, areas may be determined by a qualified vertebrate paleontologist as having low potential for containing significant paleontological resources subject to adverse impacts.
- High Sensitivity (High A): Based on geologic formations or mappable rock units that are rocks that contain fossilized body elements, and trace fossils such as tracks, nests, and eggs. These fossils occur on or below the surface.
- High Sensitivity (High B): Sensitivity is equivalent to High A, but is based on the occurrence of fossils at a specified depth below the surface. The category High B indicates that fossils are likely to be encountered at or below four feet of depth, and may be impacted during excavation by construction activities.

Parcels within the Project Area with Low Potential include APNs 691-100-029, 691-100-030, 691-050-021, 691-060-010, 691-050-010, and 691-050-012. A parcel with High Sensitivity (High A) in the Project Area includes APN 691-180-006.

4.7.2 Geology and Soils Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Project Impact Adequately Addressed in SMP PEIR	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Directly or indirectly cause substantial adverse effects, including the risk of loss, injury, or death involving:					
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

No Impact.

- i) Several properties within the City are impacted by the southernmost section of the San Andreas fault and/or secondary faults. The South Branch of the San Andreas Fault is located approximately 1 mile north of the Project Area, however no known active faults are directly within the Project Area (City of Indio 2019a). Due to the absence of any onsite active faults, no impact related to fault-rupture would occur in the Project Area and no mitigation is required.

Less than Significant Impact.

- ii) Just like most of southern California, in the event of an earthquake strong ground shaking is expected to occur at the Project Area. The City is subject to ground shaking due to fault ruptures along nearby active faults. The most intense shaking that could damage structures would be from the San Andreas Fault, which passes along northern Indio.

The City requires that all new structures to be designed in accordance with the most recent California Building Code (CBC) adopted by City Council, including the provisions regarding seismic loads, lateral forces and grading and not built across the trace of an active fault. The Proposed Project would comply with current applicable codes and standards which would reduce the risk of loss, injury, or death resulting from strong ground-shaking. Impacts would be less than significant, and no mitigation is required.

No Impact.

- iii) Liquefaction is a phenomenon where water-saturated granular soil loses shear strength during strong ground shaking produced by earthquakes. The loss of soil strength occurs when cyclic pore water pressure increases below the groundwater surface. Potential hazards due to liquefaction include the loss of bearing strength beneath structures, possibly causing foundation failure and/or significant settlements.

The City could experience seismic shaking levels that have the potential for liquefaction in areas where groundwater is generally shallower than 30 feet (City of Indio 2019a). Due to the generally well consolidated nature of the Project Area’s underlying soil and lack of groundwater, liquefaction is not a design consideration for the Project Area. Therefore, no impact would occur and no mitigation is required.

Less than Significant Impact.

- iv) Landslides and surficial slope failure are most likely to occur in areas with a slope greater than 25 percent (hillside areas) and along steep bluffs. Since the City of Indio is relatively flat with undeveloped hillsides along the northern boundary, the City is at low risk for landslides (City of Indio 2019a). The Project Area is also relatively flat, therefore there is a low landslide risk. The Proposed Project’s facilities would be designed to withstand geologic conditions anticipated to occur in the Project Area. Impacts would be less than significant, and no mitigation is required.

Would the Project:	Potentially Significant Impact	Project Impact Adequately Addressed in SMP PEIR	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Less than Significant Impact.

Best Management Practices (BMPs) are included as part of the Stormwater Pollution Prevention Plan (SWPPP) prepared for the Proposed Project and would be implemented to manage erosion and the loss of topsoil during construction-related activities, as described in Section IX. Implementation of the SWPPP would reduce soil erosion impacts to a less than significant level.

Would the Project:	Potentially Significant Impact	Project Impact Adequately Addressed in SMP PEIR	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the Project, and potentially result in onsite or offsite landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Less than Significant Impact.

According to the City’s General Plan, Indio is at low risk for landslides due to its relatively flat topography (City of Indio 2019a). The Project Area is not located within an area susceptible to landslides and is also flat. Refer to Threshold iv) above for an analysis of landslides.

Ground subsidence involves the settling of ground surface due to extraction of oil, gas, or groundwater. The City is an area of historic subsidence. The principal cause of land subsidence in the City is groundwater extraction. A network of continuous Global Positioning System (GPS) stations has been set up in the Coachella Valley to monitor this subsidence (City of Indio 2019a).

Due to the generally well consolidated nature of the underlying soil and lack of groundwater, liquefaction is not a design consideration for the Project Area. Dewatering will not be required for the planned facilities (Black & Veach 2022).

As discussed in Threshold ii) above, the City requires that all new structures are designed in accordance with the most recent CBC adopted by City Council. All of the Proposed Project’s structures and buildings will be designed for gravity, live, wind, and seismic loads and load combinations per the CBC. For buildings, lateral seismic and wind loads will be transferred to the foundation using lateral force resisting systems per American Society of Civil Engineers-7 Standard and CBC (Black & Veach 2022). Therefore, the Proposed Project would not contribute to a new exposure of people or structures to substantial adverse effects associated with onsite or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse. Impacts would be less than significant.

Would the Project:	Potentially Significant Impact	Project Impact Adequately Addressed in SMP PEIR	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No Impact.

The NRCS Web Soil Survey website lists six soil types within the Project Area. These soil types are Coachella fine sandy loam (CsA), 0 to 2 percent slopes; Gilman fine sandy loam (GbA), 0 to 2 percent slopes; Indio fine sandy loam (Ip); Indio very fine sandy loam (Is); and Myoma fine sand (MaB), 0 to 5 percent slopes (NRCS 2023a).

Silts and sands are usually non-expansive or have very low expansion potential, while clays are recognized as expansive soils. As the Project area is located on sandy loam and sand, the Proposed Project is not expected to be negatively impacted by expansive soils. No impact would occur.

Would the Project:	Potentially Significant Impact	Project Impact Adequately Addressed in SMP PEIR	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No Impact.

All proposed WRP 7 and MP 113.2 pump station improvements are within existing CVWD facilities. The proposed Young’s Farmland NPW pipeline would be constructed within the ROW of Jefferson Street and on Young’s Farmland private property. The City’s sewer lines are available for the disposal of wastewater. The Project WRP 7 facility currently treats flows of 5 MGD and the tertiary processes including filtration and disinfection have a capacity of 2.5 MGD. No impact would occur.

Would the Project:	Potentially Significant Impact	Project Impact Adequately Addressed in SMP PEIR	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Less than Significant with Mitigation Incorporated.

According to the MMC search results, the Project Area includes parcels with Low Potential (APNs 691-100-029, 691-100-030, 691-050-021, 691-060-010, 691-050-010, and 691-050-012) and a parcel with High Sensitivity (High A) (APN 691-180-006). The areas of Low Potential are determined to have a low potential for containing significant paleontological resources subject to adverse impacts. Areas with High Sensitivity (High A) have a high potential to contain fossilized body elements and trace fossils such as tracks, nests, and eggs which would occur on or below the surface (Riverside County 2023a).

Due to the high paleontological sensitivity potential within a portion of the Project Area, any fossil specimens recovered would be scientifically significant. The development of the Project Area could impact

any paleontological resources discovered during excavation activities. Impacts would be less than significant with the implementation of Mitigation Measure GEO-PS-1.

4.7.3 Mitigation Measures

GEO-PS-1: Unanticipated Discovery – Paleontological Resource. If paleontological resources (i.e., fossil remains) are discovered during excavation activities, the contractor will notify CVWD and cease excavation within 50 feet of the find until a qualified paleontological professional can provide an evaluation of the find. The qualified paleontological professional will evaluate the significance of the find and recommend appropriate measures for the disposition of the resource (e.g., fossil recovery, curation, data recovery, and/or monitoring). Construction activities may continue on other parts of the construction site outside of the 50-foot buffer while evaluation and treatment of the paleontological resource takes place.

4.8 Greenhouse Gas Emissions

This analysis was prepared using methods and assumptions recommended in the rules and regulations of the SCAQMD. This section presents regional and local existing conditions in addition to pertinent greenhouse gas (GHG) emissions-related standards and regulations. The purpose of this assessment is to estimate Project-generated GHG emissions and to determine the level of impact the Project would have on the environment.

4.8.1 Environmental Setting

Greenhouse gas emissions are released as byproducts of fossil fuel combustion, waste disposal, energy use, land use changes, and other human activities. This release of gases, such as carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), and chlorofluorocarbons, creates a blanket around the earth that allows light to pass through but traps heat at the surface, preventing its escape into space. While this is a naturally occurring process known as the greenhouse effect, human activities have accelerated the generation of GHGs beyond natural levels. The overabundance of GHGs in the atmosphere has led to an unexpected warming of the earth and has the potential to severely impact the earth's climate system.

Each GHG differs in its ability to absorb heat in the atmosphere based on the lifetime, or persistence, of the gas molecule in the atmosphere. CH₄ traps over 25 times more heat per molecule than CO₂, and N₂O absorbs 298 times more heat per molecule than CO₂ (Intergovernmental Panel on Climate Change 2014). Often, estimates of GHG emissions are presented in carbon dioxide equivalents (CO₂e), which weigh each gas by its global warming potential. Expressing GHG emissions in CO₂e takes the contribution of all GHG emissions to the greenhouse effect and converts them to a single unit equivalent to the effect that would occur if only CO₂ were being emitted.

The local air quality agency regulating the Riverside County portion of the SSAB is the SCAQMD. To provide guidance to local lead agencies on determining significance for GHG emissions in CEQA documents, SCAQMD staff convened a GHG CEQA Significance Threshold Working Group. The Working Group was formed to assist the SCAQMD's efforts to develop a GHG significance threshold and is composed of a wide variety of stakeholders including the State Office of Planning and Research (OPR),

CARB, the Attorney General's Office, a variety of city and county planning departments in the Basin, various utilities such as sanitation and power companies throughout the Basin, industry groups, and environmental and professional organizations. On September 28, 2010, SCAQMD Working Group Meeting #15 provided an interim screening level numeric "bright-line" threshold of 3,000 metric tons of CO₂e annually and an efficiency-based threshold of 3.0 metric tons of CO₂e per service population (defined as the people that work and reside in the Project Area) per year in 2035. The SCAQMD has not announced when staff is expecting to present a finalized version of these thresholds to the governing board.

The numeric bright line and efficiency-based thresholds described above were developed to be consistent with CEQA requirements for developing significance thresholds, are supported by substantial evidence, and provide guidance to CEQA practitioners and lead agencies with regard to determining whether GHG emissions from a proposed project are significant.

Additionally, the City's Climate Action Plan (CAP) aims to reduce GHG emissions within the City by providing clear policy guidance. The City's CAP offers GHG reduction strategies for improving connectivity and land use patterns, improving transportation systems, incorporating energy efficiency standards, increasing the City's renewable energy supply, and reducing solid waste. The CAP identifies the California Air Pollution Control Officers Association (CAPCOA) guidance of 900 metric tons of CO₂e as a conservative screening threshold for determining if projects would need further analysis for significant impacts. For proposed projects above the screening threshold, the City requires completion of the Climate Ready Development Review Checklist. The checklist is designed to reflect the targets set for the measures and policies set out in the CAP.

In *Center for Biological Diversity v. Department of Fish and Wildlife* (2015) 62 Cal. 4th 2014, 213, 221, 227, following its review of various potential GHG thresholds proposed in an academic study [Crockett, *Addressing the Significance of Greenhouse Gas Emissions: California's Search for Regulatory Certainty in an Uncertain World* (July 2011), 4 Golden Gate U. Envtl. L. J. 203], the California Supreme Court identified the use of numeric bright-line thresholds as a potential pathway for compliance with CEQA GHG requirements. The study found numeric bright line thresholds designed to determine when small projects were so small as to not cause a cumulatively considerable impact on global climate change was consistent with CEQA. Specifically, Public Resources Code section 21003(f) provides it is a policy of the State that "[a]ll persons and public agencies involved in the environmental review process be responsible for carrying out the process in the most efficient, expeditious manner in order to conserve the available financial, governmental, physical and social resources with the objective that those resources may be better applied toward the mitigation of actual significant effects on the environment." The Supreme Court-reviewed study noted, "[s]ubjecting the smallest projects to the full panoply of CEQA requirements, even though the public benefit would be minimal, would not be consistent with implementing the statute in the most efficient, expeditious manner. Nor would it be consistent with applying lead agencies' scarce resources toward mitigating actual significant climate change impacts." (Crockett, *Addressing the Significance of Greenhouse Gas Emissions: California's Search for Regulatory Certainty in an Uncertain World* (July 2011), 4 Golden Gate U. Envtl. L. J. 203, 221, 227.)

Project emissions are compared to the SCAQMD bright line numeric threshold of 3,000 metric tons annually. This threshold assists in determining if the Proposed Project complies with applicable plans,

policies, regulations and requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions. Additionally, the Proposed Project is assessed for consistency with the City’s CAP Screening Threshold and Climate Ready Development Review Checklist.

4.8.2 Greenhouse Gas Emissions Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Project Impact Adequately Addressed in SMP PEIR	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Less than Significant Impact.

GHG emissions-related impacts are assessed in accordance with methodologies recommended by the SCAQMD. Where GHG emission quantification is required, emissions are modeled using CalEEMod version 2022.1. CalEEMod is a statewide land use emissions computer model designed to quantify potential GHG emissions associated with both construction and operations from a variety of land use projects. Project construction generated GHG emissions are calculated using CalEEMod model defaults for Riverside County. Operational GHG emissions were based on the Project dimensions identified in the Project Area plans and energy calculations for wastewater treatment and distribution were made in accordance with California Energy Commission’s Refining Estimates of Water Related Energy Use in California (CEC 2006) guidance for water related energy use in California. Additionally, the energy calculations in regard to the UV water treatment system were made in accordance with the U.S. Department of Energy’s Energy Tips for Wastewater Treatment Plants (2021).

Construction Significance Analysis

Construction-related activities that would generate GHG emissions include worker commute trips, haul trucks carrying supplies and materials to and from the Project Area, and off-road construction equipment (e.g., dozers, loaders, excavators). Table 4.8-1 illustrates the specific construction generated GHG emissions that would result from construction of the Project. Once construction and upgrades for the Proposed Project are complete, the generation of these GHG emissions would cease.

Table 4.8-1. Construction-Related Greenhouse Gas Emissions	
Emissions Source	CO₂e (Metric Tons/ Year)
Construction Year One	209
Total Construction Emissions	209

Source: CalEEMod version 2022.1. Refer to Appendix D for Model Data Outputs.

As shown in Table 4.8-1, Project construction would result in the generation of approximately 209 metric tons of CO₂e over the course of construction. Once construction is complete, the generation of these GHG emissions would cease. Consistent with SCAQMD recommendations, Project construction GHG emissions have been amortized of the expected life of the Project, which is considered to be 30 years per the SCAQMD. The amortized construction emissions are added to the annual average operational emissions (see Table 4.8-2). The construction impacts are less than significant.

Operational Significance Analysis

Operation of the Proposed Project's upgrades to the facilities would result in an increase in GHG emissions primarily associated with onsite energy from the wastewater treatment and distribution pumping. Energy calculations and associated GHG emissions for the upgraded water treatment and distribution systems were made in accordance with CEC guidance for water related energy use in California. More specifically, energy calculation takes into account the proposed UV water treatment system, which were calculated using the U.S Department of Energy's Energy Tips for Wastewater Treatment Plants. Long-term operational GHG emissions attributed to the Project are identified in Table 4.8-2.

Table 4.8-2. Operational-Related Greenhouse Gas Emissions	
Emissions Source	CO₂e (Metric Tons/ Year)
Construction Emissions (amortized over the 30-year life of the Project)	7
Mobile	91
Area	0
Energy	2,606
Water	8
Waste	5
Vegetation	1
Total	2,718
<i>SCAQMD Significance Threshold</i>	<i>3,000</i>
Exceed SCAQMD Threshold?	No

Source: CalEEMod version 2022.1. Refer to Appendix A for Model Data Outputs.

Notes: Emission projections predominately based on CalEEMod model defaults for Riverside County. Energy calculations and associated GHG emissions for water treatment and distribution were made in accordance with the CEC's Refining Estimates of Water Related Energy Use in California (2006) and the U.S. Department of Energy's Energy Tips for Wastewater Treatment Plants.

As shown in Table 4.8-2, operational-generated emissions associated with the upgrades to the facilities would not exceed the SCAQMD's numeric bright-line threshold. It is important to note that a portion of the operational GHG emissions shown above capture some GHG emissions are already occurring under existing conditions, such as energy needed for wastewater treatment and distribution. However, the GHG emissions modeled above only presents the operational GHG emissions that would result from the upgraded facilities and pumps that the Project proposes. SCAQMD thresholds were developed based on substantial evidence that such thresholds represent quantitative levels of GHG emissions, compliance with which means that the environmental impact of the GHG emissions will normally not be cumulatively considerable under CEQA. These thresholds were developed as part of the SCAQMD GHG CEQA Significance Threshold Working Group. The working group was formed to assist the SCAQMD's efforts to develop a GHG significance threshold and is composed of a wide variety of stakeholders including the State OPR, CARB, the Attorney General's Office, a variety of city and county planning departments in the SSAB, various utilities such as sanitation and power companies throughout the basin, industry groups, and environmental and professional organizations. The 3,000 metric tons of CO₂e per year value represents less than one percent of future 2050 statewide GHG emissions target. This impact is less than significant.

Would the Project:	Potentially Significant Impact	Project Impact Adequately Addressed in SMP PEIR	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Less than Significant Impact.

The Proposed Project would upgrade the CVWD wastewater treatment plant facilities and construct a 2,500 linear foot pipeline to expand water distribution. The Proposed Project would support the City’s CAP policies for water recycling and water conservation. Although the City’s CAP promotes the usage of the CAPCOA screening threshold of 900 metric tons of CO₂e and the completion of the Climate-Ready Development Review Checklist, this applies to typical development projects. As seen in Table 4.8-2, the operational GHG emissions surpass the CAPCOA screening threshold of 900 metric tons of CO₂e annually, yet it is noted that majority of the emissions modeled are already occurring under existing conditions. The Proposed Project’s upgrades and construction would increase energy efficiency and likely not be a significant source of new GHG emissions. Furthermore, due to the fact that the Project proposes infrastructure, the aspects of the Proposed Project are not directly applicable to the criteria assessed in the Climate Ready Development Review Checklist. It is noted that the Proposed Project would not conflict with any of the criteria considered in the checklist or otherwise hinder the implementation of CAP policies. As such, the Proposed Project would in no way hinder or conflict with the GHG-reducing goals and strategies. Additionally, as shown in Table 4.8-2, Project-generated GHG emissions would not surpass the SCAQMD’s GHG significance thresholds, which were prepared with the purpose of complying with statewide GHG-reduction efforts and the Scoping Plan. Additionally, the Proposed Project would be designed and operated to meet or exceed the applicable requirements of the Green Building Standards. Furthermore, the Proposed Project would be subject to the 2022 Title 24 Standards which represent challenging but achievable design and construction practices that represent a major step towards meeting Zero Net Energy. As such, this impact is less than significant.

4.8.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.9 Hazards and Hazardous Materials

The analysis of hazards and hazardous materials is tiered from the 2020 SMP PEIR and was addressed in Section 2.4, CEQA Overview, of that document. The 2020 SMP PEIR concluded that project construction and operation would comply with applicable federal, state, and local laws and regulations regarding the use and storage of hazardous materials. In Riverside County, 11 sites are on the Cortese list and 4 sites are on the list in Imperial County; however, none of the sites are within the individual project areas included in the Master Plan. For these reasons, the PEIR did not further analyze hazards and hazardous materials (CVWD 2022).

Analysis in this section is supplemented by the following information that is specific to the Project's environmental setting.

4.9.1 Environmental Setting

A material is considered hazardous if it appears on a list of hazardous materials prepared by a federal, state, or local agency, or if it has characteristics defined as hazardous by such an agency. A hazardous material is defined by the California Health and Safety Code, Section 25501 as follows:

"Hazardous material" means any material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment. "Hazardous materials" include, but are not limited to, hazardous substances, hazardous waste, and any material that a handler or the administering agency has a reasonable basis for believing that it would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or the environment.

A hazardous material is defined in 22 CCR Section 662601.10 as follows:

A substance or combination of substances which, because of its quantity, concentration, or physical, chemical or infectious characteristics, may either (1) cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or (2) pose a substantial present or potential hazard to human health or environment when improperly treated, stored, transported or disposed of or otherwise managed.

Transporters of hazardous waste in California are subject to several federal and state regulations. They must register with the California Department of Health Services (DHS) and ensure that vehicle and waste container operators have been trained in the proper handling of hazardous waste. Vehicles used for the transportation of hazardous waste must pass an annual inspection by the California Highway Patrol (CHP). Transporters must allow the CHP or DHS to inspect its vehicles and must make certain required inspection records available to both agencies. The transport of hazardous materials that are not wastes is regulated by the U.S. Department of Transportation through national safety standards.

Other risks resulting from hazardous materials include the use of these materials in local industry, businesses, and agricultural production. The owner or operator of any business or entity that handles hazardous material above threshold quantities is required by state and federal laws to submit a business plan to the local Certified Unified Program Agency (CUPA). The Riverside County Department of Environmental Health Hazardous Materials Branch is designated by the California Environmental Protection Agency as the CUPA for Riverside County. The CUPA program is designed to consolidate, consistently administer, and coordinate the six hazardous materials programs within the County. This approach strives to reduce overlapping and sometimes conflicting requirements of different governmental agencies independently managing these programs. The CUPA also oversees the two Participating Agencies (Corona Fire and Riverside Fire) that implement hazardous materials programs within the County (Riverside County 2023b).

Under Government Code Section 65962.5, both the Department of Toxic Substances Control (DTSC) and the State Water Resources Control Board (SWRCB) are required to maintain lists of sites known to have hazardous substances present in the environment. Both agencies maintain up-to-date lists on their websites.

4.9.2 Hazards and Hazardous Materials Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Project Impact Adequately Addressed in SMP PEIR	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Less than Significant Impact.

Some hazardous materials, such as diesel fuel, would be used during construction of the Proposed Project. The use of such materials would not create a significant hazard to the public as the release of any construction-related spills would be prevented through the implementation of BMPs listed in the SWPPP. Equipment maintenance or refueling would occur offsite and not in the construction area.

Two chemical systems currently support the tertiary system: aluminum sulfate (50 percent solution strength) for coagulation of filterable solids and chlorine for disinfection. The chemical storage and feed systems will be located at the existing alum storage and feed area and placed under a new pre-engineered metal canopy to mitigate UV degradation of chemicals, crystallization within the pumps, and to protect operations and maintenance staff. Due to safety concerns with plant operators as well as neighboring land uses, the existing chlorine gas storage and feed system will be decommissioned as the primary disinfection method and will be replaced with UV disinfection technology. The existing vendor supplying chlorine gas will remove the cannisters from the WRP 7 facility. Chlorine (including in the form of sodium hypochlorite [bleach]) is necessary for maintenance dosing at the filter, UV channels, seasonal storage, and NPW distribution system to control algae blooms (Black & Veatch 2022). The UV system does not involve the use of any hazardous materials. These substitutions will mitigate issues related to safety and handling.

New chemical disinfection storage and feed equipment will be located in the existing chemical storage area adjacent to the existing alum storage and feed system. It will be placed under a new pre-engineered metal canopy to mitigate UV degradation of chemicals, crystallization within the pumps, and to protect operations and maintenance staff.

Project construction and operation would comply with applicable federal, state, and local laws and regulations regarding the use and storage of hazardous materials. According to the City’s Development Code 3.04.09, the use, storage, and disposal of hazardous materials shall be regulated and monitored according to standards established by the USEPA, DHS, DTSC, the Riverside County Department of

Environmental Health, and the City's Fire and Building Codes (City of Indio 2022a). Impacts would be less than significant and no mitigation is required.

Would the Project:	Potentially Significant Impact	Project Impact Adequately Addressed in SMP PEIR	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Less than Significant Impact.

As noted above, some hazardous materials, such as diesel fuel, would be used during construction. A SWPPP listing BMPs to prevent construction pollutants and products from violating any water quality standard or waste discharge requirements would be prepared for the Proposed Project. The release of any construction-related spills would be prevented through the implementation of BMPs listed in the SWPPP.

Operations of the Proposed Project involve use of sodium hypochlorite for maintenance dosing at the filter, UV channels, seasonal storage, and NPW distribution system. New chemical disinfection storage and feed equipment will be located in the existing chemical storage area adjacent to the existing alum storage and feed system. It will be placed under a new pre-engineered metal canopy to mitigate UV degradation of chemicals, crystallization within the pumps, and to protect operations and maintenance staff.

Unless otherwise indicated in the equipment control descriptions, equipment in automatic mode shall be transitioned to manual mode and stopped if the equipment fails or becomes unavailable. When equipment failure is sensed or when the equipment transitions from available to unavailable, the active state (start, open, forward, initiate, etc.) control output will be removed.

Impacts would be less than significant and no mitigation is required.

Would the Project:	Potentially Significant Impact	Project Impact Adequately Addressed in SMP PEIR	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No Impact.

The Proposed Project is located approximately 0.62 mile northeast of Shadow Hills High School, the closest school to the Project Area. The Proposed Project is located more than one-quarter mile from an existing or proposed school. No impact would occur and no mitigation is required.

Would the Project:	Potentially Significant Impact	Project Impact Adequately Addressed in SMP PEIR	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No Impact.

Government Code Section 65962.5 requires the DTSC, the State Department of Health Services, the SWRCB, and the California Integrated Waste Management Board to compile and annually update lists of hazardous waste sites and land designated as hazardous waste property throughout the State.

The California Environmental Protection Agency (CalEPA) Cortese List Data Resources records were reviewed to help determine whether hazardous materials have been handled, stored, or generated in the Project Area or the adjacent properties and businesses (CalEPA 2022).

The Cortese List is a compilation of five separate websites that includes:

1. DTSC’s EnviroStor – identifies waste or hazardous substances sites.
2. SWRCB’s GeoTracker – identifies underground storage tanks for which an unauthorized release report was filed, cleanup sites, and all solid waste disposal facilities from which there is a mitigation of hazardous waste for which a regional board has notified DTSC.
3. A pdf of solid waste disposal sites identified by the SWRCB with waste constituents above hazardous waste levels outside the waste management unit.
4. A list of cease-and-desist orders and clean up and abatement orders.
5. A list of hazardous waste facilities subject to corrective action.

DTSC’s EnviroStor indicated that that Project Area was not identified as a hazardous waste or substances site (DTSC 2023). The EnviroStor search identified the following two cleanup sites approximately 0.70 mile west of the Project Area:

- Jefferson Elementary School
 - Location: Avenue 39/Jefferson Street, Indio, CA 92201
 - Site Type: School Investigation
 - Potential Contaminants of Concern: Arsenic, DDT

- Potential Media Affected: Soil
- Cleanup Status: No Further Action as of 2/11/2004
- Avenue 39 High School
 - Location: Jefferson Street/Avenue 39, Indio, CA 92201
 - Site Type: School Investigation
 - Potential Contaminants of Concern: Chlordane, DDD, DDE, DDT
 - Potential Media Affected: Soil
 - Cleanup Status: No Further Action as of 6/19/2002

GeoTracker did not identify the Project Area as a location for an underground storage tank for which an unauthorized release report was filed, a cleanup site, or a solid waste disposal facility from which there is a mitigation of hazardous waste for which a regional board has notified DTSC (SWRCB 2023). The GeoTracker search identified the following four LUST Cleanup Sites approximately 1 mile east of the Project Area:

- Massey Sand & Rock
 - Location: 38155 Monroe Street, Indio, CA 92201
 - Site Type: LUST Cleanup Site
 - Potential Contaminants of Concern: Gasoline
 - Potential Media Affected: Soil
 - Cleanup Status: Completed – Case Closed as of 8/25/1992
- Tarmac California
 - Location: 38155 Monroe Street, Indio, CA 92201
 - Site Type: LUST Cleanup Site
 - Potential Contaminants of Concern: Diesel
 - Potential Media Affected: Soil
 - Cleanup Status: Completed – Case Closed as of 11/8/1995
- Granite Construction Company
 - Location: 38000 Monroe Street, Indio, CA 92203
 - Site Type: LUST Cleanup Site
 - Potential Contaminants of Concern: Diesel, Gasoline
 - Potential Media Affected: Soil
 - Cleanup Status: Completed – Case Closed as of 12/24/2003
- Granite Construction Company
 - Location: 38155 Monroe Street, Indio, CA 92203
 - Site Type: LUST Cleanup Site
 - Potential Contaminants of Concern: Diesel
 - Potential Media Affected: Soil
 - Cleanup Status: Completed – Case Closed as of 7/22/2010

A list of solid waste disposal sites with waste constituents above hazardous waste levels outside the waste management unit was also checked. No records were listed. The list of cease-and-desist orders and clean

up and abatement orders did not include the Project Area location. The list of hazardous facilities subject to corrective action do not include the Project Area location.

As the Proposed Project is not listed on one of the five websites provided to fulfill the Cortese List, the Proposed Project would not create a significant hazard to the public or the environment. No impact would occur and no mitigation is required.

Would the Project:	Potentially Significant Impact	Project Impact Adequately Addressed in SMP PEIR	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
e) For a Project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project result in a safety hazard for people residing or working in the Project Area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No Impact.

The Bermuda Dunes Airport is a privately-owned, public-use general aviation airport located along the central, western edge of the City, approximately 1.7 mile southwest of the Project Area. As a privately owned facility, no master plan has been prepared for Bermuda Dunes Airport. The Riverside County Airport Land Use Compatibility Plan (ALUCP) identifies the Airport Influence Area for Bermuda Dunes Airport. The Project Area is located within Airport Compatibility Zone E (Other Airport Environs). In Zone E there is no limit for maximum densities, hazards to flights are prohibited, and an airspace review is required for objects taller than 100 feet (Riverside County Airport Land Use Commission 2004). The Proposed Project would comply with the ALUCP and would not include structures that pose a hazard to flights or for people residing or working in the Project Area. No impact would occur.

Would the Project:	Potentially Significant Impact	Project Impact Adequately Addressed in SMP PEIR	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No Impact.

The Riverside County East County Operations Center is located at 82695 Dr. Carreon Boulevard and is the facility where regional operations are coordinated in the event of a natural, technological, intentional human-made, or unintentional human-made disaster. Emergency evacuation information as well as urgent actions to take during disasters such as earthquakes, wildfires, and floods is disseminated Riverside County community members through the County of Riverside Emergency Management Department's

(EMD) Alert RivCo alerting system. According to Riverside County’s Emergency Operations Plan, the Evacuation/Reentry Unit will coordinate evacuation and reentry with the Riverside County Sheriff’s Department (Riverside County 2019).

Implementation of the Proposed Project would require pipeline construction to occur within the public ROW of Jefferson Street from Young Way until its connection with Avenue 38 which may temporarily restrict vehicular traffic. Furthermore, the Proposed Project design would be submitted to and approved by the City’s Fire and Police Departments prior to any construction activities to ensure there is no interference with emergency evacuation. Upon construction completion, streets affected by construction would be restored to pre-disturbance conditions. No impact would occur.

Would the Project:	Potentially Significant Impact	Project Impact Adequately Addressed in SMP PEIR	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Less than Significant Impact.

The Proposed Project would involve construction within the existing public ROW and improvements to the existing CVWD WRP 7 facility, including habitable buildings. The City’s General Plan area, including the Project Area, is not within a wildfire severity zone as designated by the California Department of Forestry and Fire Protection (CAL FIRE) (CAL FIRE 2023; City of Indio 2019a). The risk of loss, injury, or death involving wildland fires is low. Impacts would be less than significant.

4.9.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.10 Hydrology and Water Quality

The analysis of hazards and hazardous materials is tiered from the 2020 SMP PEIR and was addressed in Section 4.6, Hydrology and Water Quality, of that document. The analysis of hydrology and water quality is applicable to the Proposed Project which would involve an increase in impervious structures at the WRP 7 site (CVWD 2022).

The following applicable mitigation measures were adopted as part of the 2020 SMP PEIR. They are incorporated as part of the Proposed Project and have been assumed in the analysis presented in this section.

HYD-1: Stormwater Management Facilities. To mitigate for the alteration of existing drainage patterns that could result in erosion, siltation, flooding, polluted runoff, and/or impede or redirect flood flows, CVWD will consider surface water runoff increases from new impervious surfaces and drainage patterns during planning and design phases of each

project. Each site would include design of improved stormwater management facilities onsite to avoid offsite discharge that would exceed the capacity of the stormwater system or cause flooding. A grading and drainage plan will be included in each improvement plan set for construction. The plan will identify and implement temporary and permanent BMPs and other construction controls to ensure that increases in stormwater flows off-site are minimized.

Analysis in this section is supplemented by the following information that is specific to the Proposed Project's environmental setting.

4.10.1 Environmental Setting

4.10.1.1 Regional Hydrology

The Salton Sea Transboundary Watershed encompasses the entire CVWD service area and includes the Whitewater, East Salton Sea, and Imperial sub watersheds. The southern boundary of the CVWD service area is the Salton Sea with the Chocolate Mountains on the eastern boundary, the Santa Rosa Mountains on the western boundary and the southern tip of the San Bernardino Mountains to the north. The Coachella Valley and City of Indio are part of the Whitewater River Watershed which drains the local surrounding mountains and foothills into the Salton Sea, an endorheic saline lake, and is part of the larger Colorado River Basin Region (CVWD 2022).

The City's largest water supply source is groundwater from the Whitewater River Basin. This basin has an estimated storage capacity of approximately 30 million acre-feet. Groundwater levels have been declining since the 1930s as a result of overdraft, however, in eastern Coachella Valley, groundwater levels have stabilized in recent years. Natural recharge to the groundwater basin is estimated to be approximately 50,000 acre feet per year (AFY), which is only a fraction of annual pumping (City of Indio 2019a).

4.10.1.2 Site Hydrology and Onsite Drainage

The Proposed Project is located within the Coachella Hydrologic Subunit. The main drainage course for the entire Coachella Valley region from north of Palm Springs to the Salton Sea is the Coachella Valley Stormwater Channel. This channel meanders through the City in a west to east direction, partially along I-10 and is maintained by CVWD. Additional existing regional drainage facilities include the East Side Dike which is located north and east of the Project Area (Albert A. Webb Associates [Webb Associates] 2019).

The Proposed Project would include pipeline replacements and extensions in the existing roadway of Jefferson Street from Young Way until its connection with Avenue 38. Drainage from these existing roads are directed to the East Side Dike and the Coachella Canal. The topography of the WRP 7 facility is comprised of natural grade and sunken earthen basins to support secondary treatment percolation. The overall plant site slopes downward from a high point on the northwest corner at an elevation of 53 feet to a low point on the southeast corner at an elevation of 47 feet. Dirt roads run along the west and south borders of WRP 7 on the undeveloped properties. Northeast of WRP 7 is an earthen dike running northwest to southeast to direct stormwater away from the facility. Stormwater generated at the facility is directed to retention basins and does not leave the boundaries of the facility (Black & Veatch 2022).

4.10.2 Hydrology and Water Quality Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Project Impact Adequately Addressed in SMP PEIR	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Project Impact Adequately Addressed in SMP PEIR.

The analysis of Impact HYD-1 in the 2020 SMP PEIR concluded that impacts to water quality from erosion, sedimentation, or interference with shallow groundwater during construction of the Proposed Project would be less than significant. A detailed discussion of the regulatory setting for water quality is provided in Section 4.6, Hydrology and Water Quality, of the 2020 SMP PEIR.

The Proposed Project includes upgrades to existing underground and above-ground infrastructure and new infrastructure which would require grading activities. Construction activities could result in the release of pollutants such as sediment, construction materials, and hazardous materials to surface waters and/or groundwater. Other potential sources of pollutants would be the accidental spill or release of hazardous materials from leaking equipment, unsecured stored materials, and stockpiling and staging areas (CVWD 2022).

Grading activities during construction would result in the temporary removal of impervious surfaces, landscaping, and soil excavation to access areas to replace or construct new pipeline and other underground improvements. Areas temporarily disturbed during construction would be restored to existing or improved stabilized conditions. Site restoration activities would include re-paving and replacement of impervious surfaces, backfilling of trenches and excavations with native or new material, and replanting of landscaping or native vegetation. Temporary staging areas would also be restored once construction is completed (CVWD 2022).

WRP 7 is permitted under Waste Discharge Requirements (WDRs) for Coachella Valley Water District, Improvement District 58 Water Reclamation Plant 7, Indio – Riverside County pursuant to Board Order R7-2022-0009 and the Proposed Project would comply with the permit. The Proposed Project would also comply with 22 CCR Section 60304. Title 22 requirements state the required treatment stages and the expected water quality at each stage necessary to produce compliant water. The Project proposes to retrofit and improve the WRP 7 tertiary treatment system; with overall treated water effluent capacity from the facility remaining the same (Black & Veatch 2022).

The discharge of waste authorized by the WDRs satisfies the conditions to be exempt from the requirements of Title 27 of the CCR because (1) the discharge is regulated by these WDRs; (2) these WDRs will ensure the discharge complies with the Basin Plan; and (3) the discharge will not include “hazardous waste.” Additionally, stormwater generated at the WRP 7 facility is currently directed to retention basins

and does not leave the boundaries of the facility. No violations of water quality standards or WDRs would occur. Impacts were adequately addressed in the 2020 SMP PEIR.

Would the Project:	Potentially Significant Impact	Project Impact Adequately Addressed in SMP PEIR	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Project Impact Adequately Addressed in SMP PEIR.

The analysis of Impact HYD-2 in the 2020 SMP PEIR concluded that the planned conversion of some wastewater at WRP 7 to recycled water use would decrease groundwater pumping and would not negatively impact sustainable groundwater management of the subbasins (CVWD 2022).

Groundwater is a receiving water for treated effluent from WRP 7. WRP 7 discharges a small portion of treated effluent to groundwater through percolation ponds and the majority of treated effluent as recycled water to the NPW system used for landscape and golf course irrigation. Use of recycled water for irrigation instead of stored groundwater reduces groundwater pumping and would not negatively impact sustainable groundwater management of the subbasins (CVWD 2022). The proposed pipelines would be installed underground and would not impede groundwater supplies or recharge. The Proposed Project would have a less than significant impact related to substantial depletion of groundwater supplies or interference with groundwater recharge such that the project may impede sustainable groundwater management of the basin. Impacts were adequately addressed in the 2020 SMP PEIR.

Would the Project:	Potentially Significant Impact	Project Impact Adequately Addressed in SMP PEIR	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that would:					
i) result in substantial erosion or siltation onsite or offsite;	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding onsite or offsite;	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- | | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|
| iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| iv) impede or redirect flood flows? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Project Impact Adequately Addressed in SMP PEIR.

- i) The analysis of Impact HYD-3 in the 2020 SMP PEIR concluded that the Proposed Project includes improvements that would add impervious surfaces that could affect existing drainage patterns increasing onsite erosion and sediment transport during storm events. The new impervious surfaces would not be located within any streams or rivers so the drainage areas would not be impacted. Post-construction BMPs would reduce the potential for substantial erosion or siltation (CVWD 2022).

In compliance with the 2020 SMP PEIR’s Mitigation Measure HYD-1, CVWD will consider surface runoff during planning and design phases and include a grading and drainage plan for construction to mitigate for the alteration of existing drainage patterns that could result in erosion and siltation. The Proposed Project would have a less than significant impact related to altering the existing drainage pattern of the site or area in a manner which would result in substantial erosion or siltation on- or offsite. Impacts were adequately addressed in the 2020 SMP PEIR.

Project Impact Adequately Addressed in SMP PEIR.

- ii) The Proposed Project includes improvements that would add impervious surfaces that could potentially create additional flooding on- or offsite. The area of new impervious surfaces would be relatively small within each of the individual project areas. There would be some changes to site drainage patterns, surface runoff, and flood management (CVWD 2022).

In compliance with the 2020 SMP PEIR’s Mitigation Measure HYD-1, CVWD will consider surface runoff during planning and design phases and include a grading and drainage plan for construction to mitigate flooding. Additionally, stormwater generated at the WRP 7 facility is directed to retention basins onsite and does not leave the boundaries of the facility, therefore preventing onsite and offsite flooding. The Proposed Project would have a less than significant impact related to altering the existing drainage pattern or substantially increasing the rate or amount of surface runoff in a manner which would result in flooding on- or offsite. Impacts were adequately addressed in the 2020 SMP PEIR.

Less than Significant Impact.

- iii) The analysis of existing or planned stormwater drainage systems in the 2020 SMP PEIR notes that CVWD recently prepared the Eastern Coachella Valley Stormwater Master Plan Project

which includes a portion of the Project Area and the Coachella Valley Stormwater Channel north of the Salton Sea. The Stormwater Master Plan describes planning and implementation of improvements to the stormwater infrastructure and capacity and guidelines for future development in the area for stormwater management.

Additionally, there are no stormwater discharges from the WRP 7 facility to waters of the United States because stormwater generated at the facility is directed to retention basins and does not leave the boundaries of the facility. The proposed improvements would not create runoff such that the capacity of the retention basins would be exceeded. The proposed NPW pipeline which would be located below ground would not create or contribute to runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. Impacts would be less than significant.

Less than Significant Impact.

- iv) The WRP 7 facility is within Zone A which is within the 100-year floodplain, and existing flood control dikes constructed by the Bureau of Reclamation are located to the north of the WRP and south of offsite percolation ponds. Planned above-ground improvements to WRP 7 within the 100-year floodplain include projects to improve secondary and tertiary treatment processes with new structures and existing facility improvements (CVWD 2022).

After construction, Project components would increase impervious surfaces, however, flood flows may be redirected around new improvements before being directed to the onsite retention basins. Implementation of the proposed pipeline would not increase impervious surfaces as it would be located underground. Impacts would be less than significant.

Would the Project:	Potentially Significant Impact	Project Impact Adequately Addressed in SMP PEIR	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to Project inundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Less than Significant Impact.

The analysis of risk of release of pollutants in the 2020 SMP PEIR concluded that improvements at WRP 7 could increase the risk of the release of untreated wastewater and/or chemicals into the environment during a flood event. Improvements constructed within the 100-year floodplain at WRP 7 could be damaged during extreme flood events which could have a significant impact to public wastewater treatment services and water quality of receiving waters (CVWD 2022).

The northwest portion of the City north of I-10 and within the Whitewater River are located within the 100-year floodplain. Some isolated areas within the northwestern and southwestern portion of the City fall within the 500-year floodplain (City of Indio 2019a). The Federal Emergency Management Agency (FEMA)

Flood Insurance Rate Maps (FIRMs) Number 06065C1620G, Panel 1620G shows the Project Area is within Zone A, a special flood hazard area with no Base Flood Elevations determined; Zone X, a special flood hazard area with 0.2 percent annual chance flood hazard; and Letters of Map Revision (LOMR) 11-09-1520P (FEMA 2008). A LOMR is a letter from FEMA officially revising the current National Flood Insurance Program map to show changes to flood plains, regulatory foodways, or flood elevations. FIRM Number 06065C1650G shows the portion of the Project Area south of Avenue 40 is in Zone D, Area with Flood Risk due to Levee.

The City adopted a Local Hazard Mitigation Plan (LHMP) in 2018. The LHMP identified flooding as having an above average severity and above average probability. CVWD adopted its LHMP in 2019.

CVWD approved a regional flood project that will provide protection for northeast Indio and the surrounding area. The North Indio Regional Flood Control Project, set to be completed Summer 2024, will construct a 2.5-mile long series of concrete flood control channels and will connect with existing channels starting in Sun City Palm Desert and take flows from there through North Indio to channels in Sun City Shadow Hills and into the Coachella Valley Stormwater Channel. The second phase of this project includes obtaining levee accreditation from FEMA for the existing East Side Dike. The North Indio Regional Flood Control Project will protect North Indio land and homes from regional flooding, remove about 2,700 acres of North Indio land from FEMA’s designated special flood hazard area, and eliminate the flood insurance requirement for area residents. The likelihood of flood hazard within the Project Area would be reduced.

The Project Area is more than 75 miles from the Pacific Ocean and is outside a tsunami inundation zone. Seiches are waves that oscillate in enclosed water bodies, such as reservoirs, lakes, and ponds, or semi-enclosed bodies of water. Seiches may be triggered by moderate or large submarine earthquakes or sometimes by large onshore earthquakes. Inundation from a seiche can occur if the wave overflows a containment of an artificial body of water. According to the City’s General Plan Safety Chapter, the City is not within an inundation zone in the event of a dam or levee failure and is not at risk for tsunami or seiche (City of Indio 2019a). Impacts would be less than significant and no mitigation is required.

Would the Project:	Potentially Significant Impact	Project Impact Adequately Addressed in SMP PEIR	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Project Impact Adequately Addressed in SMP PEIR.

As described in the 2020 SMP PEIR, the existing CVWD facility is permitted by the Colorado River Regional Water Quality Control Board (RWQCB) in accordance with the Colorado River Basin Water Quality Control Plan. The Proposed Project improvements would comply with the RWQCB Goals and Management Principles for implementation of the Water Quality Control Plan for the basin as stated below:

- Encourage reclamation of wastewaters, wherever feasible, in order to preserve freshwater supplies to protect water quality to the maximum extent possible
- Waste collection, treatment, discharge systems in addition to their primary function, shall also be oriented towards optimization of the quality of state waters and the reclamation of wastewaters for beneficial use
- Source control and pretreatment of wastes will be required wherever necessary to minimize degradation of water quality
- Evaporative loss of reclaimable wastewater is to be minimized

The increase in recycled water supplied by WRP 7 for irrigation use from the Proposed Project improvements would help meet the objectives of the sustainable groundwater management plans by reducing reliance on pumped groundwater for golf course irrigation and other irrigation users. Therefore, the Proposed Project would have no impact to implementation of a water quality control plan nor sustainable groundwater management plan, consistent with the findings of the 2020 SMP PEIR.

4.10.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.11 Land Use and Planning

The analysis of land use and planning is tiered from the 2020 SMP PEIR and was addressed in Section 4.7, Land Use, Planning, and Agriculture, of that document. Relevant elements of the Proposed Project related to land use and planning include improvements to existing CVWD facilities, construction of a new NPW pipeline, and operation and maintenance improvements (CVWD 2022).

4.11.1 Environmental Setting

The City of Indio has an urban pattern that includes established residential areas and commercial corridors in the historic part of the City, and suburban housing and commercial uses along the edge of the City. The City's planning area is composed of various land uses including vacant land (52 percent), residential uses (12 percent), transportation/communication/utility (13 percent), agricultural uses (8 percent), open space/recreation/horse facilities (5 percent), and other uses (10 percent) (City of Indio 2019a).

The City includes 14 subareas, of which the Project Area is located in the Northwest Indio subarea. The Northwest Indio subarea includes a mix of older rural neighborhood development, newer suburban neighborhood development, agricultural uses, and undeveloped open space. It is bounded on the west by golf course development within unincorporated Riverside County, on portions of the south and east sides by suburban residential development within Indio, and the northerly portion of the area is bounded by undeveloped desert to the east, north, and west (City of Indio 2019a).

4.11.2 Land Use and Planning Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Project Impact Adequately Addressed in SMP PEIR	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Physically divide an established community?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Project Impact Adequately Addressed in SMP PEIR.

As described in the 2020 SMP PEIR, the Master Plan includes improvements to existing WRPs and lift stations; rehabilitation of existing sewer pipelines; construction of new sewer pipelines and lift stations; and operation and maintenance improvements. New sewer pipelines would primarily be located within the existing right-of-way of existing roadways. There are locations where sewer pipelines would need to traverse open land; however, sewer pipelines would be located underground which would not divide an established community (CVWD 2022).

The Proposed Project would improve existing tertiary treatment plant processes and an existing canal pump station in order to reduce the usage of NPW from the Coachella Canal by generation of more RW which would benefit NPW/RW users in the WRP 7 service area. The proposed NPW pipeline would be located underground. Due to the nature of the Proposed Project, it would not physically divide an established community. Consistent with the findings of the 2020 SMP PEIR, no impact would occur. The Proposed Project impacts were adequately addressed in the 2020 SMP PEIR.

Would the Project:	Potentially Significant Impact	Project Impact Adequately Addressed in SMP PEIR	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No Impact.

The analysis of land use impacts in the 2020 SMP PEIR concluded that the proposed infrastructure improvements would support existing and future land uses in the Project Area. Improvements to existing facilities would continue the current use of each facility and as such, these improvements would be compatible and not conflict with land use plans, policies, or regulations. The Master Plan also includes the construction and operation of new sewer pipelines and lift stations. New sewer pipelines would primarily be located within the existing ROW of existing roadways. There are locations where sewer pipelines would need to traverse open land; however, sewer pipelines would be located underground. Infrastructure uses, such as sewer pipelines, are generally an allowed use in land use designations as these facilities provide support for other land uses (CVWD 2022).

The land use designation and zoning designation for the Project Area is Public and Institutional. The Project is compatible with acceptable uses. The Project aligns with the City's goals as described in the General Plan:

- Goal CE-2: Water Conservation
 - Policy CE-2.7 Reclaimed and recycled water use. Work with the CVWD, Valley Sanitation District (VSD), and the Indio Water Authority (IWA) to use reclaimed and recycled water.
- Goal IE-1: Surface and Subsurface Water
 - Policy IE-1.1 Water supply. Work with CVWD and IWA to ensure an adequate supply of domestic water facilities to sustain existing and projected water needs.
- Goal IE-3: Wastewater Collection
 - Policy IE-3.1 Agency coordination. Work with VSD, CVWD, and IWA to ensure reasonable and adequate wastewater capacity is available to serve current and future demand and pursue opportunities to utilize reclaimed and recycled water.

The Proposed Project would not conflict with any applicable land use plans or policies and no impact would occur.

4.11.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.12 Mineral Resources

The analysis of mineral resources is tiered from the 2020 SMP PEIR and was addressed in Section 2.4, CEQA Overview, of that document. The 2020 SMP PEIR found that the installation of sanitation infrastructure would not involve areas in the region mined for mineral resources or areas with known classified land containing regionally significant mineral resources, as mandated by the Surface Mining and Reclamation Act of 1975 (SMARA). For these reasons, no further analysis was conducted for mineral resources (CVWD 2022).

Analysis in this section is supplemented by the following information that is specific to the Project's environmental setting.

4.12.1 Environmental Setting

Minerals are defined as any naturally occurring chemical elements or compounds formed by inorganic processes and organic substances. Mined minerals are defined as a deposit of ore or minerals having a value materially in excess of the cost of developing, mining, and processing the mineral and reclaiming the project area. The conservation, extraction, and processing of mineral resources is essential to meeting the needs of society.

Under SMARA, cities and counties shall adopt ordinances "...that establish procedures for the review and approval of reclamation plans and financial assurances and the issuance of a permit to conduct surface mining operations..." (PRC Section 2774). The intent of this legislation is to ensure the prevention or mitigation of the adverse environmental impacts of mining, the reclamation of mined lands, and the production and conservation of mineral resources are consistent with recreation, watershed, wildlife, and public safety objectives (PRC Section 2712).

SMARA requires the State Geologist to classify land into Mineral Resource Zones (MRZs) according to the known or inferred mineral potential of that land. The process is based solely on geology, without regard to existing land use or land ownership. The primary goal of mineral land classification is to ensure that the mineral potential of land is recognized by local government decision makers and considered before land use decisions, which could preclude mining, are made.

The State Mining and Geology Board has defined the following MRZs for Indio, which describe mineral resources deposit areas (City of Indio 2019a):

- MRZ-1: Areas where available geologic information indicates that little likelihood exists for the presence of significant mineral resources.
- MRZ-2a: Areas underlain by mineral deposits where geologic data indicate that significant measured or indicated resources are present. Contains known economic mineral deposits.
- MRZ-2b: Areas underlain by mineral deposits where geologic information indicates that significant inferred resources are present.
- MRZ-3: Areas containing known or inferred mineral occurrences of undetermined mineral resource significance.
- MRZ-4: Areas where available information is inadequate for assignment to any other MRZ.

According to the City's General Plan Conservation Element, MRZs in the City include MRZ-1 and MRZ-2a while the sphere of influence also includes MRZ-2b and MRZ-3. The City's important mineral resources include sand, gravel, and termed aggregate. The Indio Quarry/Indio Hills Fan, located within the City's Sphere of Influence, is an existing permitted sand and gravel operation. Its resource area consists of a moderate-sized deposit that is located within 750 acres of an alluvial fan adjacent to and immediately south of Indio Hills (City of Indio 2019a). The Project Area is located in MRZ-1 and no mining operations currently occur in the Project Area.

4.12.2 Mineral Resources Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Project Impact Adequately Addressed in SMP PEIR	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No Impact.

The Project Area is within MRZ-1. The Project Area is not located within an area likely to be underlain by locally or regionally important mineral resources. Additionally, the Proposed Project would be located on a developed parcel and does not include mineral resource extraction, therefore the Project would not result in the loss of availability of a known mineral resource that would be of value to the region or residents of the State. No impact would occur.

Would the Project:	Potentially Significant Impact	Project Impact Adequately Addressed in SMP PEIR	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No Impact.

The Project Area is within MRZ-1, in which there is little likelihood for the presence of significant mineral resources (City of Indio 2019a). There are no identified locally or regionally important mineral resources within the Project Area. The Proposed Project would not impact any areas of known mineral resources. No impact would occur.

4.12.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.13 Noise

The analysis of land use and planning is tiered from the 2020 SMP PEIR and was addressed in Section 4.8, Noise, of that document.

4.13.1 Environmental Setting

Noise is generally defined as sound that is loud, disagreeable, or unexpected. The selection of a proper noise descriptor for a specific source is dependent on the spatial and temporal distribution, duration, and fluctuation of the noise. The noise descriptors most often encountered when dealing with traffic, community, and environmental noise include the average hourly noise level (in L_{eq}) and the average daily noise levels/community noise equivalent level (in L_{dn} /CNEL). The L_{eq} is a measure of ambient noise, while the L_{dn} and CNEL are measures of community noise. Each is applicable to this analysis and defined as follows:

- **Equivalent Noise Level (L_{eq})** is the average acoustic energy content of noise for a stated period of time. Thus, the L_{eq} of a time-varying noise and that of a steady noise are the same if they deliver the same acoustic energy to the ear during exposure. For evaluating community impacts, this rating scale does not vary, regardless of whether the noise occurs during the day or the night.
- **Day-Night Average (L_{dn})** is a 24-hour average L_{eq} with a 10-dBA “weighting” added to noise during the hours of 10:00 pm to 7:00 am to account for noise sensitivity in the nighttime. The logarithmic effect of these additions is that a 60 dBA 24-hour L_{eq} would result in a measurement of 66.4 dBA L_{dn} .
- **Community Noise Equivalent Level (CNEL)** is a 24-hour average L_{eq} with a 5-dBA weighting during the hours of 7:00 pm to 10:00 pm and a 10-dBA weighting added to noise during the hours of 10:00 pm to 7:00 am to account for noise sensitivity in the evening and nighttime, respectively.

Noise can be generated by a number of sources, including mobile sources, such as automobiles, trucks and airplanes, and stationary sources, such as construction sites, machinery, and industrial operations.

Sound spreads (propagates) uniformly outward in a spherical pattern, and the sound level decreases (attenuates) at a rate of approximately 6 dB for each doubling of distance from a stationary or point source. Sound from a line source, such as a highway, propagates outward in a cylindrical pattern (cylindrical spreading). Sound levels attenuate at a rate of approximately 3 dB for each doubling of distance from a line source, such as a roadway, depending on ground surface characteristics (Federal Highway Administration [FHWA] 2011). Soft surfaces, such as soft dirt or grass, can absorb sound, so an excess ground-attenuation value of 1.5 dB per doubling of distance is normally assumed (FHWA 2011).

The manner in which older structures in California were constructed generally provides a reduction of exterior-to-interior noise levels of about 20 to 25 dBA with closed windows (Caltrans 2002). The exterior-to-interior reduction of newer structures is generally 30 dBA or more (Harris Miller Miller & Hanson Inc. 2006).

4.13.1.1 Human Response to Noise

The human response to environmental noise is subjective and varies considerably from individual to individual. Noise in the community has often been cited as a health problem, not in terms of actual

physiological damage, such as hearing impairment, but in terms of inhibiting general well-being and contributing to undue stress and annoyance. The health effects of noise in the community arise from interference with human activities, including sleep, speech, recreation, and tasks that demand concentration or coordination. Hearing loss can occur at the highest noise intensity levels.

Noise environments and consequences of human activities are usually well represented by median noise levels during the day or night or over a 24-hour period. Environmental noise levels are generally considered low when the CNEL is below 60 dBA, moderate in the 60- to 70-dBA range, and high, above 70 dBA. Examples of low daytime levels are isolated, natural settings with noise levels as low as 20 dBA and quiet, suburban, residential streets with noise levels around 40 dBA. Noise levels above 45 dBA at night can disrupt sleep. Examples of moderate-level noise environments are urban residential or semi-commercial areas (typically 55 to 60 dBA) and commercial locations (typically 60 dBA). People may consider louder environments adverse, but most will accept the higher levels associated with noisier urban residential or residential-commercial areas (60 to 75 dBA) or dense urban or industrial areas (65 to 80 dBA). Regarding increases in dBA, the following relationships should be noted in understanding this analysis:

- Except in carefully controlled laboratory experiments, a change of 1.0 dBA cannot be perceived by humans.
- Outside of the laboratory, a 3.0-dBA change is considered a just-perceivable difference.
- A change in level of at least 5.0 dBA is required before any noticeable change in community response would be expected. An increase of 5.0 dBA is typically considered substantial.
- A 10.0-dBA change is subjectively heard as an approximate doubling in loudness and would almost certainly cause an adverse change in community response.

4.13.1.2 Noise Sensitive Land Uses

Noise-sensitive land uses are generally considered to include those uses where noise exposure could result in health-related risks to individuals, as well as places where quiet is an essential element of their intended purpose. Residential dwellings are of primary concern because of the potential for increased and prolonged exposure of individuals to both interior and exterior noise levels. Additional land uses such as hospitals, historic sites, cemeteries, and certain recreation areas are considered sensitive to increases in exterior noise levels. Schools, churches, hotels, libraries, and other places where low interior noise levels are essential are also considered noise-sensitive land uses.

The Proposed Project would be located on several different sites within the City. The nearest sensitive receptor to the Water Treatment Plant Project Area is a single-family residence located 127 feet to the north of the Project boundary, fronting Avenue 38. The nearest sensitive receptor to the MP 113.2 Pump Station is a single-family residence located 353 feet to the northwest, fronting Avenida Vidrio. The nearest sensitive receptors to the area where approximately 2,500 linear feet of NPW pipeline is proposed to be installed are single family residences approximately 52 feet to the west, located on Jefferson Street.

4.13.1.3 Vibration Fundamentals

Ground vibration can be measured in several ways to quantify the amplitude of vibration produced, including through peak particle velocity (PPV) or root mean square velocity. These velocity measurements measure maximum particle velocity at one point or the average of the squared amplitude of the signal, respectively.

Vibration impacts on people can be described as the level of annoyance and can vary depending on an individual’s sensitivity. Generally, low-level vibrations may cause window rattling but do not pose any threats to the integrity of buildings or structures.

4.13.1.4 Existing Ambient Noise Environment

The most common and significant source of noise in the City of Indio is mobile noise generated by transportation-related sources, such as roadways, rail, and Bermuda Dunes Airport. Other sources of noise in Indio are the Music Festival and special events that occur in Indio’s festival district. Additionally, the City experiences noise generated by various land uses (i.e., industrial facilities, agricultural uses, residential and commercial). More specifically, the noise environment in the Proposed Project Area is impacted by transportation, commercial, and residential noise sources. One of the Proposed Project’s locations, where the upgrades of MP 113.2 Pump Station are proposed, is approximately 1.1 miles from Interstate Highway 10 (I-10), a substantial source of noise in the area.

4.13.2 Noise Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Project Impact Adequately Addressed in SMP PEIR	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Less than Significant Impact.

Construction Noise Analysis

Onsite Construction Noise

Construction noise associated with the Proposed Project would be temporary and would vary depending on the specific nature of the activities being performed. Noise generated would primarily be associated with the operation of off-road equipment for onsite construction activities as well as construction vehicle traffic on area roadways. Construction noise typically occurs intermittently and varies depending on the nature or phase of construction (e.g., site preparation, excavation, paving). Noise generated by

construction equipment, including earth movers, pile drivers, and portable generators, can reach high levels. Typical operating cycles for these types of construction equipment may involve one or two minutes of full power operation followed by three to four minutes at lower power settings. Other primary sources of acoustical disturbance would be random incidents, which would last less than one minute (such as dropping large pieces of equipment or the hydraulic movement of machinery lifts). During construction, exterior noise levels could negatively affect sensitive land uses in the vicinity of the construction site.

The City's Municipal Code Section 95C.08 prohibits construction noise between the hours 7:00 a.m. to 6:00 p.m. Monday through Friday, 8:00 a.m. to 6:00 p.m. on Saturdays, and 9:00 a.m. to 5:00 p.m. on Sundays and government holidays. The City does not promulgate a numeric threshold pertaining to the noise associated with construction. This is due to the fact that construction noise is temporary, short term, intermittent in nature, and would cease on completion of the Proposed Project. The Proposed Project would be required to adhere to City Municipal Code Section 95C.08.

To estimate the worst-case onsite construction noise levels that may occur at the nearest noise-sensitive receptors and in order to evaluate the potential health-related effects (i.e., physical damage to the ear, psychological effects) from construction noise, the construction equipment noise levels were calculated using the Federal Highway Administration's Roadway Noise Construction Model and compared against the construction-related noise level threshold established in the Criteria for a Recommended Standard: Occupational Noise Exposure prepared in 1998 by National Institute for Occupational Safety and Health (NIOSH). A division of the U.S. Department of Health and Human Services, NIOSH identifies a noise level threshold based on the duration of exposure to the source. The NIOSH construction-related noise level threshold starts at 85 dBA for more than 8 hours per day; for every 3-dBA increase, the exposure time is cut in half. This reduction results in noise level thresholds of 88 dBA for more than 4 hours per day, 92 dBA for more than 1 hour per day, 96 dBA for more than 30 minutes per day, and up to 100 dBA for more than 15 minutes per day. For the purposes of this analysis, the lowest, more conservative threshold of 85 dBA L_{eq} is used as an acceptable threshold for construction noise at the nearby sensitive receptors. There are several close sensitive receptors to the various areas where construction will occur. The nearest sensitive receptor to the WRP 7 Project Area is a single-family residence located 127 feet to the north of the Project boundary, fronting Avenue 38. The nearest sensitive receptor to the MP 113.2 Pump Station is a single-family residence located 353 feet to the northwest, fronting Avenida Vidrio. The nearest sensitive receptors to the area where approximately 2,500 linear feet of NPW pipeline is proposed to be installed are single-family residences located approximately 52 feet to the west, located on Jefferson Street. The anticipated short-term construction noise levels generated for the necessary equipment is presented in Table 4.13-1.

Table 4.13-1. Construction Average (dBA) Noise Levels at Nearest Receptor			
Construction Phase	Estimated Exterior Construction Noise Level @ Closest Receptors (dBA L_{eq})	Construction Noise Standard (dBA L_{eq})	Exceeds Standards?
NPW Pipeline			
Grubbing and Land Clearing	81.3	85	No
Grading, Excavation, and Pipeline Installation	83.5	85	No
Paving	82.8	85	No
MP 113.2 Pump			
Site Preparation	67.6	85	No
Grading	68.9	85	No
Building Construction, Paving, and Painting	71.3	85	No
WRP Facility			
Site Preparation	76.5	85	No
Grading	77.8	85	No
Building Construction, Paving, and Painting	80.2	85	No

Source: Construction noise levels were calculated by ECORP Consulting using the FHWA Roadway Noise Construction Model (FHWA 2006). Refer to Appendix E for Model Data Outputs.

Notes: Construction equipment used during construction provided using the California Emissions Estimator Model (CalEEMod), version 2022.1. CalEEMod is designed to calculate air pollutant emissions from construction activity and contains default construction equipment and usage parameters for typical construction projects based on several construction surveys conducted in order to identify such parameters.

L_{eq} = The equivalent energy noise level, is the average acoustic energy content of noise for a stated period of time. Thus, the L_{eq} of a time-varying noise and that of a steady noise are the same if they deliver the same acoustic energy to the ear during exposure. For evaluating community impacts, this rating scale does not vary, regardless of whether the noise occurs during the day or the night.

As shown in Table 4.13-1, construction activities would not exceed the NIOSH established noise standards. It is noted that construction noise was modeled on a worst-case basis. It is very unlikely that all pieces of construction equipment would be operating at the same time. This is a less than significant impact.

Offsite Construction Worker Trips

Project construction would result in additional traffic on adjacent roadways over the period that construction occurs. According to CalEEMod, which is designed to model emissions for land use development projects, based on typical construction requirements. CalEEMod generates the construction

assumptions, including construction equipment duration and the number of construction-related automotive trips. The maximum number of Project construction trips traveling to and from the Project Area during a single construction phase would not be expected to be 10 daily trips in total. According to Caltrans Technical Noise Supplement to the Traffic Noise Analysis Protocol (2013), a doubling of traffic on a roadway is required to result in an increase of 3 dB (outside of the laboratory, a 3-dBA change is considered a just-perceivable difference). The various parts of the Project Area are accessible from Avenue 38, Madison Street, Avenue 40, and Jefferson Street. According to the City's General Plan Mobility Element, Avenue 38, Jefferson Street, and Madison Street are classified as 2-Lane Collector with Median Roadways. Avenue 40 is classified as a 4-Lane Boulevard with Median. These two classifications of roadways serve to connect major areas within the City, and can accommodate medium volumes of vehicular traffic, bicycle lanes, and pedestrian walkways. Furthermore, according to the City's General Plan Noise Element, Avenue 38 and Avenue 40 already experience noise levels of approximately 65 to 70 dBA with portions of the roadways experiencing more than 70 dBA. Additionally, Jefferson Street and Madison Street experience noise levels of approximately 65 to 70 dBA. As such, the roadways are experiencing enough traffic on the roadways to experience noise levels above 65 dBA. Thus, the 10 daily trips generated during Project construction would not result in a doubling of traffic, and therefore its contribution to existing traffic noise would not be perceptible. Additionally, it is noted that construction is temporary, and these trips would cease upon completion of the Project. Therefore, this impact is less than significant.

Operational Noise Analysis

Noise-sensitive land uses are locations where people reside or where the presence of unwanted sound could adversely affect the use of the land. Residences, schools, hospitals, guest lodging, libraries, and some passive recreation areas would each be considered noise-sensitive and may warrant unique measures for protection from intruding noise. There are several close sensitive receptors to the various areas where construction will occur. The nearest sensitive receptor to the WRP 7 Project Area is a single-family residence located 127 feet to the north of the Project boundary, fronting Avenue 38. The nearest sensitive receptor to the MP 113.2 Pump Station is a single-family residence located 353 feet to the northwest, fronting Avenida Vidrio. The nearest sensitive receptors to the area where approximately 2,500 linear feet of NPW pipeline is proposed to be installed are single family residences located approximately 52 feet to the west, located on Jefferson Street.

Operational Traffic Noise

The Project proposes to make improvements to the existing CVWD WRP and associated facilities. The upgrades to the systems and installation of the linear pipeline would not result in an increase in operational daily traffic trips to the CVWD facilities. The existing operations of the CVWD would continue after the Proposed Project's construction is completed at the same level of intensity. As such, there would be no increase in traffic trips that would result in an increase in ambient noise levels at sensitive receptors close to the Project Area's locations. This impact is less than significant.

Onsite Operational Noise

As previously mentioned, the Proposed Project aims to upgrade the existing CVWD wastewater treatment plant facilities and construct a 2,500 linear foot pipeline to expand water distribution. The operations of the Proposed Project would not increase any perceivable noise producing activities that would take place in the surrounding areas of the various sites associated with the Project. The upgrades made to the CVWD facilities are not expected to be a significant source of noise that would impact the nearby sensitive noise receptors. As such, operational noise produced as a result of the Proposed Project would result in a less than significant impact.

Would the Project:	Potentially Significant Impact	Project Impact Adequately Addressed in SMP PEIR	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Result in generation of excessive ground-borne vibration or ground-borne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Less than Significant Impact.

Construction Vibrational Analysis

Excessive groundborne vibration impacts result from continuously occurring vibration levels. Increases in groundborne vibration levels attributable to the Proposed Project would be primarily associated with short-term construction-related activities. Construction in the Project Area would have the potential to result in varying degrees of temporary groundborne vibration, depending on the specific construction equipment used and the operations involved. Ground vibration generated by construction equipment spreads through the ground and diminishes in magnitude with increases in distance.

Construction-related ground vibration is normally associated with impact equipment such as pile drivers, jackhammers, and the operation of some heavy-duty construction equipment, such as dozers and trucks. It is not anticipated that pile drivers or jackhammers would be necessary during Project construction. Vibration decreases rapidly with distance, and it is acknowledged that construction activities would occur throughout the Project Area and would not be concentrated at the point closest to sensitive receptors. Groundborne vibration levels associated with construction equipment are summarized in Table 4.13-2.

Table 4.13-2. Representative Vibration Source Levels for Construction Equipment	
Equipment Type	PPV at 25 Feet (inches per second)
Large Bulldozer	0.089
Pile Driver	0.170
Loaded Trucks	0.076
Hoe Ram	0.089

Table 4.13-2. Representative Vibration Source Levels for Construction Equipment	
Equipment Type	PPV at 25 Feet (inches per second)
Jackhammer	0.035
Small Bulldozer/Tractor	0.003
Vibratory Roller	0.210

Source: Federal Transit Administration (FTA) 2018; Caltrans 2020

Notes: PPV = peak particle velocity

The City does not regulate vibrations associated with construction. However, a discussion of construction vibration is included for full disclosure. For comparison purposes, the Caltrans (2020b) recommended standard of 0.3 inches per second PPV with respect to the prevention of structural damage for commercial buildings is used as a threshold. As identified in Table 4.13-2 above, this level of ground vibration equates to the range of human perception and is unlikely to cause damage to any type of building.

The nearest structure of concern to the various construction sites, with regard to groundborne vibrations, is a single-family residence, located approximately 52 feet east of Jefferson Road, where the proposed pipeline of the Proposed Project would be installed. All other sensitive receptors would be further away from the construction sites and would experience vibrations levels less than the values shown below in Table 4.13-3.

Based on the representative vibration levels presented for various construction equipment types in Table 4.13-2 and the construction vibration assessment methodology published by the FTA (2018), it is possible to estimate the potential Project construction vibration levels. The FTA provides the following equation:

$$[PPV_{\text{equip}} = PPV_{\text{ref}} \times (25/D)^{1.5}]$$

Table 4.13-3 presents the expected Proposed Project related vibration levels at a distance of 52 feet.

Table 4.13-3 Construction Vibration Levels at 52 Feet							
Receiver PPV Levels (in/sec) ¹					Peak Vibration	Threshold	Exceed Threshold?
Large Bulldozer, Caisson Drilling, & Hoe Ram	Loaded Trucks	Jackhammer	Pile Driver	Vibratory Roller			
0.030	0.025	0.012	0.057	0.070	0.070	0.3	No

Notes: ¹Based on the Vibration Source Levels of Construction Equipment included on Table 4.13-2 (FTA 2018). Distance to the nearest structure of concern to any of the various Project locations is approximately 52 feet measured from where construction will occur.

As shown in Table 4.13-3, vibration as a result of onsite construction activities in the Project Area would not exceed 0.3 PPV at the nearest structure. Thus, onsite Project construction would not exceed the recommended threshold. Because of these reasons, this impact is less than significant.

Operational Vibration Analysis

Project operations would not include the use of any stationary equipment that would result in excessive vibration levels. While the Proposed Project may accommodate heavy-duty trucks, these vehicles can only generate groundborne vibration velocity levels of 0.006 PPV at 50 feet under typical circumstances. Therefore, the Proposed Project would result in negligible groundborne vibration impacts during operations. This impact is less than significant.

Would the Project:

Potentially Significant Impact Project Impact Adequately Addressed in SMP PEIR Less than Significant with Mitigation Incorporated Less than Significant Impact No Impact

- c) For a Project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project expose people residing or working in the Project Area to excessive noise levels?

No Impact.

The nearest airport to the Project Area is the Bermuda Dunes Airport located approximately 1.48 miles to the southwest of the closest portion of the Project Areas. According to the City’s General Plan Noise Element, the Project Area is not within any of the noise contours from the airport. Therefore, the implementation of

the Proposed Project would not affect airport operations, nor result in increased exposure of those in the Project Area to aircraft noise.

4.13.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.14 Population and Housing

The analysis of population and housing is tiered from the 2020 SMP PEIR and was addressed in Section 2.4, CEQA Overview, of that document. The 2020 SMP PEIR states the Master Plan would accommodate the planned growth in the CVWD service area and not in itself induce population growth; in addition, the proposed sewer infrastructure improvements are designed to meet sewer capacity demand but would not in themselves create the demand. For these reasons, the evaluation of population and housing was not carried forward for further analysis in the PEIR (CVWD 2022).

Analysis for population and housing is supplemented by the following information that is specific to the Project’s environmental setting.

4.14.1 Environmental Setting

The City of Indio is the largest city in the Coachella Valley. According to the 2020 U.S. Census, Indio has a population of 89,137. The City has 34,458 households with 2.54 persons per household (U.S. Census Bureau 2023). Indio is expected to reach a population of approximately 123,000 by 2040 and have 38,203 households with 3.14 persons per household. In addition to permanent residents, thousands of people reside in the City during the winter months and festivals (City of Indio 2019a).

4.14.2 Population and Housing Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Project Impact Adequately Addressed in SMP PEIR	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Project Impact Adequately Addressed in SMP PEIR.

Section 2.4 of the 2020 SMP PEIR determined that growth in the CVWD service area is projected in the local General Plans and the Master Plan projects would not in themselves induce population growth. The Project does not propose to construct new housing or businesses. The new sanitation infrastructure would accommodate current and planned development and would not directly or indirectly induce population growth. Construction of the Proposed Project would use the local labor force and operation of the Project

would be conducted by existing CVWD staff. The Proposed Project would have no impact related to inducing substantial unplanned population growth in an area, either directly or indirectly. The Proposed Project impacts were adequately addressed in the 2020 SMP PEIR.

Would the Project:	Potentially Significant Impact	Project Impact Adequately Addressed in SMP PEIR	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Displace substantial numbers of people or existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No Impact.

The Proposed Project does not include the removal or disturbance of existing housing; therefore, it would not displace people or housing. No impact would occur.

4.14.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.15 Public Services

The analysis of public services is tiered from the 2020 SMP PEIR and was addressed in Section 2.4, CEQA Overview, of that document. The 2020 SMP PEIR states that further analysis of public services was not carried forward because the Master Plan would not result in population growth increasing the need for additional public services. Impacts were found not to be significant (CVWD 2022).

Analysis for public services is supplemented by the following information that is specific to the Project's environmental setting.

4.15.1 Environmental Setting

4.15.1.1 Police Services

Police Services in the City of Indio are provided by the Indio Police Department. With a staff of approximately 80 employees, the Police Department is composed of the Field Services Division and the Support Services Division. The Field Services Division is responsible for controlling crime and public safety issues throughout Indio, investigating traffic collisions, enforcing traffic violations, participating in community outreach efforts, operating the K-9 Teams, Code Enforcement, and the School Resource Officer program. The support Services Division is responsible for supporting the Department's policing activities and initiatives. The Division consists of Police Investigations, the Communications Unit, Information Technology, and Property and Evidence Unit (City of Indio 2019a). The Indio Police Department is located at 46800 Jackson Street, approximately 4.7 miles southeast of the Project Area.

4.15.1.2 Fire Services

The Indio Fire Department provides fire and emergency medical services to the City. A full range of fire services are provided as part of the regional fire protection system through a cooperative agreement with the Riverside County Fire Department. Advanced life support services are provided with City Fire Ambulances staffed with two paramedic firefighters, four paramedic assessment engines and one paramedic truck. The Fire Department has 56 full-time staff and services are delivered from four stations located throughout the City (City of Indio 2019a). Indio Station #4, located at 81-025 Avenue 40, is located approximately 0.80 miles south of the Project Area.

4.15.1.3 Schools

The City of Indio is located within the Desert Sands Unified School District (DSUSD) and the Coachella Valley Unified School District. The City includes 20 schools, College of the Desert, and California Desert Trial Academy College of Law (City of Indio 2019a). The Project Area is served by DSUSD. DSUSD primarily serves five communities in the central Coachella Valley including Bermuda Dunes, Indian Wells, Indio, La Quinta, and Palm Desert. 26,300 students attend 34 schools in the district including traditional high schools, alternative high schools, middle schools, elementary schools, and 16 preschools (DSUSD 2023).

Shadow Hills High School and Desert Ridge Academy Middle School are the nearest schools to the Project Area, located approximately 0.64 miles southwest and 0.84 miles southwest respectively.

4.15.1.4 Parks

The City provides 1.2 acres of City-owned parkland per 1,000 residents, excluding resort open spaces such as golf courses. The City maintains 16 existing parks totaling 107 acres (City of Indio 2019a). Burr Park, which contains basketball courts and playground equipment, is located approximately 2.22 miles south of the Project Area.

4.15.1.5 Other Public Facilities

The County of Riverside manages the Library System Indio Branch (City of Indio 2019a).

4.15.2 Public Services Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Project Impact Adequately Addressed in SMP PEIR	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:					
Fire Protection?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Police Protection?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Schools?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Parks?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other Public Facilities?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4.15.2.1 Fire Protection

Project Impact Adequately Addressed in SMP PEIR.

As identified in the 2020 SMP PEIR, the Master Plan would accommodate the planned growth in the CVWD service area and would not result in population growth which would increase the need for additional public services (CVWD 2022). The Proposed Project would not change existing demand for fire protection because no increase in population growth or employment would occur from the improvements to the existing tertiary treatment plant processes and existing canal pump station. The Proposed Project would have no impact on fire protection. The Proposed Project impacts were adequately addressed in the 2020 SMP PEIR.

4.15.2.2 Police Services

Project Impact Adequately Addressed in SMP PEIR.

As identified in the 2020 SMP PEIR, the Master Plan would accommodate the planned growth in the CVWD service area and would not result in population growth which would increase the need for additional public services (CVWD 2022). The Proposed Project would not change existing demand for police services because no increase in population growth or employment would occur from the

improvements to the existing tertiary treatment plant processes and existing canal pump station. The Proposed Project would have no impact on police services. The Proposed Project impacts were adequately addressed in the 2020 SMP PEIR.

4.15.2.3 Schools

Project Impact Adequately Addressed in SMP PEIR.

As identified in the 2020 SMP PEIR, the Master Plan would accommodate the planned growth in the CVWD service area and would not result in population growth which would increase the need for additional public services (CVWD 2022). The Proposed Project would not change existing demand for school facilities because no increase in population growth or employment would occur from the improvements to the existing tertiary treatment plant processes and existing canal pump station. The Proposed Project would have no impact on schools. The Proposed Project impacts were adequately addressed in the 2020 SMP PEIR.

4.15.2.4 Parks

Project Impact Adequately Addressed in SMP PEIR.

As identified in the 2020 SMP PEIR, the Master Plan would accommodate the planned growth in the CVWD service area and would not result in population growth which would increase the need for additional public services (CVWD 2022). The Proposed Project would not change existing demand for parks because no increase in population growth or employment would occur from the improvements to the existing tertiary treatment plant processes and existing canal pump station. The Proposed Project would have no impact on parks. The Proposed Project impacts were adequately addressed in the 2020 SMP PEIR.

4.15.2.5 Other Public Facilities

Project Impact Adequately Addressed in SMP PEIR.

As identified in the 2020 SMP PEIR, the Master Plan would accommodate the planned growth in the CVWD service area and would not result in population growth which would increase the need for additional public services (CVWD 2022). No other facilities would be affected by the improvements to the existing tertiary treatment plant processes and existing canal pump station. The Proposed Project would have no impact on other public facilities. The Proposed Project impacts were adequately addressed in the 2020 SMP PEIR.

4.15.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.16 Recreation

The analysis of recreation is tiered from the 2020 SMP PEIR and was addressed in Section 2.4, CEQA Overview, of that document. The 2020 SMP PEIR states no increase in the need for recreational resources would occur as a result of the Master Plan as it would accommodate the planned growth in the CVWD service area and would not in itself induce population growth. Recreation impacts were found not to be significant (CVWD 2022).

Analysis for recreation is supplemented by the following information that is specific to the Project’s environmental setting.

4.16.1 Environmental Setting

The City provides 1.2 acres of City-owned parkland per 1,000 residents, excluding resort open spaces such as golf courses. The City maintains 16 existing parks totaling 107 acres. Existing pedestrian hiking trails are located generally northeast of Golf Center Parkway, as well as along Avenue 38 adjacent to the Talavera/Andreas Ranch development. In addition to these parks, the Desert Recreation District operates the Indio Community Center, gymnasium, and park located at Avenue 46 and Clinton Street (City of Indio 2019a).

Additional opportunities to increase parkland include negotiating joint-use agreements with the school districts to ensure school recreational facilities are open to the public during non-school hours, and working with utility and public service providers to allow recreational easements along utility corridors (City of Indio 2019a).

The Coachella Valley Association of Governments is currently working on the Coachella Valley Link (CV Link), a multi-modal transportation route that is intended to traverse the Coachella Valley. CV Link is a greenway serves as an integral component of Indio’s recreational open space system by accommodating cyclists, pedestrians, low-speed electric, and other alternative-powered vehicles (City of Indio 2019a).

4.16.2 Recreation Materials Checklist

Would the Project:	Potentially Significant Impact	Project Impact Adequately Addressed in SMP PEIR	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Project Impact Adequately Addressed in SMP PEIR.

As identified in the 2020 SMP PEIR, the Master Plan would accommodate the planned growth in the CVWD service area and would not result in population growth; therefore, no increase in the need for recreational resources would occur (CVWD 2022). The Proposed Project consists of improving existing

tertiary treatment plant processes and an existing canal pump station in order to reduce the usage of NPW from the Coachella Canal by generation of more RW. Routine maintenance of Project facilities would be managed by existing staff and would not result in an increase in employment. Therefore, no increase in demand or use of existing parks or recreational facilities would result from the implementation of the Proposed Project. The Proposed Project would have no impact on recreational resources. The Proposed Project impacts were adequately addressed in the 2020 SMP PEIR.

Would the Project:	Potentially Significant Impact	Project Impact Adequately Addressed in SMP PEIR	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No Impact.

The Proposed Project would consist of upgrades to existing water infrastructure and would not affect recreational facilities. As such, the Proposed Project would not require the construction of new recreational facilities, which might have an adverse physical effect on the environment. No impact would occur.

4.16.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.17 Transportation

The analysis of transportation is tiered from the 2020 SMP PEIR and was addressed in Section 2.4, CEQA Overview, of that document. The 2020 SMP PEIR states traffic generated during construction would be temporary and spread out over the CVWD service area over a 19-year planning horizon. There would be no increase in automobile trips to each individual Project Area because daily visits would not be required. Intermittent maintenance by CVWD staff would require a negligible number of traffic trips annually. As such, impacts to transportation and traffic were found not to be significant and not analyzed further in the PEIR (CVWD 2022).

Analysis for transportation is supplemented by the following information that is specific to the Project’s environmental setting.

4.17.1 Environmental Setting

4.17.1.1 Roadway Facilities

Vehicular travel is a major mode of transportation for residents and visitors of the City. The main freeway for regional and interregional vehicular travel is I-10 which runs east-west through the City. State Route

(SR) 86 is a north-south highway that links the Coachella Valley starting in the City of Indio and continuing southward through the Imperial Valley to the City of Calexico. Highway 111 provides local access to homes and businesses while facilitating regional travel. The portion of Highway 111 in the City is classified as a 6-Lane Major Arterial from Jefferson Street and is then reduced to a 4-Lane Secondary Highway near Arabia Street for its remaining length in the City (City of Indio 2019a). The Project Area is bordered to the north by Avenue 38 and the east by Madison Street, both classified as 2-Lane Collectors with a median or center left-turn lane.

4.17.1.2 Transit Facilities

Currently, SunLine Refueled operates a variety of bus routes through the City. Route 1EV, Route 6, Route 8, and Route 10 Commuter Link include stops in the City (SunLine Transit Agency 2023). Route 8 provides the closest bus stop for the Project Area, located near Showcase Parkway and Monroe Street, approximately 2.33 miles southeast of the Project Area.

4.17.1.3 Bicycle Facilities

Bicycle facilities in the City include Class I, II, III, and IV bicycle facilities. Class I Bike Paths provide a completely separated right-of-way for exclusive use of bicycles and pedestrians with crossflow minimized. Class II Bike Lanes provide a delineated right-of-way for one-way bike travel on a street or highway. Class III Bike Routes provide a shared use with pedestrians or motor vehicle traffic. Class IV Separated Bikeways provide a protected lane for one-way bike travel on a street or highway Avenue 38 along the northern boundary of the Project Area supports Class II Bike Lanes and trails and Madison Street to the east of the Project Area supports Class II Bike Lanes (City of Indio 2019a).

4.17.1.4 Pedestrian Facilities

According to the City's General Plan Mobility Element, all new neighborhoods are required to be pedestrian friendly by including features such as short blocks, wide sidewalks, shaded streets, and convenient pedestrian street crossings. Additionally, a network of transportation corridors throughout the City are planned to provide more connectivity for pedestrians and bicycles (City of Indio 2019a).

4.17.2 Transportation Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Project Impact Adequately Addressed in SMP PEIR	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No Impact.

As identified in the 2020 SMP PEIR, traffic generated during construction would be temporary. There would be no resultant increase in automobile trips because the improved facilities would not require daily visits (CVWD 2022). Short-term construction-related traffic would not conflict with the City's Transportation Element or impede the implementation of City programs supporting walking, bicycling, and use of public transportation. No impact would occur.

Would the Project:	Potentially Significant Impact	Project Impact Adequately Addressed in SMP PEIR	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Less than Significant Impact.

CEQA Guidelines Section 15064.3 subdivision (b) addresses the criteria for analyzing transportation impacts and establishes the vehicle miles traveled (VMT) metric as the most appropriate measure of transportation impacts in a CEQA document. Section 15064.3(b)(3) allows an agency to determine a project's transportation impact on a qualitative basis if a VMT methodology is unavailable, as is the case with the Proposed Project.

Section 15064.3(b)(3) is as follows:

"Qualitative Analysis. If existing models or methods are not available to estimate the vehicle miles traveled for the particular project being considered, a lead agency may analyze the project's vehicle miles traveled qualitatively. Such a qualitative analysis would evaluate factors such as the availability of transit, proximity to other destinations, etc. For many projects, a qualitative analysis of construction traffic may be appropriate."

The Proposed Project would result in a short-term increase in the amount of traffic on the local roadways during construction. Following completion of the Project there would be no increase in traffic beyond current conditions. As stated in the 2020 SMP PEIR, the improved facilities would not require daily visits and intermittent maintenance by CVWD staff would require a negligible number of traffic trips on an annual basis (CVWD 2022). The Proposed Project would not increase the capacity of any of the affected roadways in the area and, as such, would not lead to a measurable and substantial increase in VMT. Therefore, the Proposed Project would have a less than significant impact.

Would the Project:	Potentially Significant Impact	Project Impact Adequately Addressed in SMP PEIR	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No Impact.

The Project proposes improvements to the existing tertiary treatment plant processes and an existing canal pump station at WRP 7, including retrofitting the existing dual media filter basins with cloth disk filters, constructing a UV system in an enclosed building, abandoning the existing chorine gas system and maintaining the chlorine contact basin, replacing aged infrastructure at canal water delivery pump station MP 113.2, and pipeline improvements in the existing roadway of Jefferson Street from Young Way until its connection with Avenue 38. The uses are compatible with the existing water reclamation facility and do not involve any hazardous geometric design features such as sharp curves or dangerous intersections. No impact would occur.

Would the Project:	Potentially Significant Impact	Project Impact Adequately Addressed in SMP PEIR	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
d) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No Impact.

Construction of the Proposed Project would require construction activities to occur within the public ROW along Jefferson Street from Young Way until its connection with Avenue 38. Traffic generated during construction would be temporary and would not affect any major arterials within the City. Upon construction completion, streets affected by construction would be returned to pre-disturbance conditions. Furthermore, the Proposed Project design would be submitted to and approved by the City's Fire and Police Departments prior to any construction activities to ensure adequate emergency access is provided. No impact would occur.

4.17.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.18 Tribal Cultural Resources

4.18.1 Environmental Setting

4.18.1.1 Ethnography

Prior to the arrival of European Americans in the region, indigenous groups speaking more than 100 different languages and occupying a variety of ecological settings inhabited California. The uniqueness of California's indigenous groups were recognized and thus they were classified as belonging to the California culture area. California was further subdivided into four subculture areas: Northwestern, Northeastern, Southern, and Central (ECORP 2023).

Ethnographic accounts of Native Americans indicate that the Project Area lies predominantly within the original territory of the Cahuilla. The Cahuilla spoke a Takic language. The Takic group of languages is part of the Uto-Aztecan language family. The Cahuilla occupied a territory ranging from the San Bernardino Mountains in the north to the Chocolate Mountains and Borrego Springs in the south, and from the Colorado Desert in the east to Palomar Mountain in the west. They engaged in trade, marriage, shared rituals, and war with other groups of Native Americans whose territories they overlapped, primarily the Serrano and Gabrielino (ECORP 2023).

Cahuilla subsistence consisted of hunting, gathering, and fishing. Villages were often located near water sources, most commonly in canyons or near drainages on alluvial fans. Cahuilla buildings consisted of dome-shaped or rectangular houses, constructed of poles covered with brush and above-ground granaries. Other material culture included baskets, pottery, and grinding implements; stone tools, arrow shaft straighteners and bows; clothing (loincloths, blankets, rope, sandals, skirts, and diapers); and various ceremonial objects made from mineral, plant, and animal substances (ECORP 2023).

As many as 10,000 Cahuilla may have existed at the time of European contact in the eighteenth century. Circa 1900, Cahuilla lived in the settlements of La Mesa, Toro, and Martinez on the Augustin and Toro Indian Reservations east and southeast of the Project Area. As of 1974, approximately 900 people claimed Cahuilla ancestry (ECORP 2023).

There was no substantial Euro-American settlement in the Coachella Valley until the Southern Pacific Railroad completed its line from Los Angeles to Indio (then known as Indian Wells) in 1876. The railroad was completed to Yuma in 1877, linking southern California with Arizona and points east. Wells to supply water for the steam locomotives were dug at Indio, Coachella (originally named Woodspur), Thermal (originally named Kokell), and Mecca (originally named Walters). Settlement began around these wells and railroad stations, forming the nucleus of today's Coachella Valley towns (ECORP 2023).

4.18.2 Regulatory Setting

4.18.2.1 Assembly Bill 52

Effective July 1, 2015, AB 52 amended CEQA to require that: 1) a lead agency provide notice to those California Native American tribes that requested notice of projects proposed by the lead agency; and 2)

for any tribe that responded to the notice within 30 days of receipt with a request for consultation, the lead agency must consult with the tribe. Topics that may be addressed during consultation include TCRs, the potential significance of Project impacts, type of environmental document that should be prepared, and possible mitigation measures and Project alternatives.

Pursuant to AB 52, Section 21073 of the PRC defines California Native American tribes as “a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of the Statutes of 2004.” This includes both federally and non-federally recognized tribes.

Section 21074(a) of the PRC defines TCRs for the purpose of CEQA as:

1. Sites, features, places, cultural landscapes (geographically defined in terms of the size and scope), sacred places, and objects with cultural value to a California Native American tribe that are either of the following:
 - a. Included or determined to be eligible for inclusion in the California Register of Historical Resources; and/or
 - b. Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1; and/or
 - c. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Section 5024.1. In applying the criteria set forth in subdivision (c) of Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.

Because criteria a and b also meet the definition of a historical resource under CEQA, a TCR may also require additional consideration as a historical resource. TCRs may or may not exhibit archaeological, cultural, or physical indicators.

Recognizing that California tribes are experts in their TCRs and heritage, AB 52 requires that CEQA lead agencies provide tribes that requested notification an opportunity to consult at the commencement of the CEQA process to identify TCRs. Furthermore, because a significant effect on a TCR is considered a significant impact on the environment under CEQA, consultation is used to develop appropriate avoidance, impact minimization, and mitigation measures.

4.18.2.2 Tribal Coordination Methods

On August 2, 2023, CVWD sent project notification letters to formally initiate AB 52 consultation with the tribes listed below, in accordance with PRC Section 21080.3.1(e):

- Agua Caliente Band of Cahuilla Indians
- Augustine Band of Cahuilla Indians
- Bureau of Indian Affairs – Pacific Region

- Bureau of Indian Affairs – Southern California Agency
- Bureau of Indian Affairs – Palm Springs Agency
- Cabazon Band of Mission Indians
- Cahuilla Band of Indians
- Los Coyotes Band of Cahuilla and Cupeño Indians
- Morongo Band of Mission Indians
- Ramona Band of Cahuilla
- Soboba Band of Luiseno Indians
- Torres-Martinez Desert Cahuilla Indians
- Twenty-Nine Palms Band of Mission Indians

Under AB 52, the Tribes have 30 days to respond and request further project information and request formal consultation.

On August 7, 2023, the Augustine Band of Cahuilla Indians responded to the notification letter stating that they are unaware of specific cultural resources that may be affected by the Proposed Project, but would like to be notified should any cultural resources be discovered during Project development.

On August 17, 2023, the ACBCI responded to the notification letter stating the Project Area is not located within the boundaries of the ACBCI reservation but is within the Tribe's Traditional Use Area. The ACBCI Tribal Historic Preservation Office requests formal government-to-government consultation under AB 52 in addition to copies of any cultural resource documentation, cultural resources inventory, record search results, and the presence of an approved Agua Caliente Native American Cultural Resource Monitor during ground disturbing activities.

On August 23, 2023, the Twenty-Nine Palms Band of Mission Indians responded to the notification letter stating the Tribal Historic Preservation Office is not aware of any cultural resources or TCRs in the Project Area that pertain to the Tribe. The Tribe concluded no further consultation is necessary, however they recommend contacting Tribes if culturally-affiliated tribal material is discovered during construction.

On September 22, 2023, the Twenty-Nine Palms Band of Mission Indians sent another response to the notification letter stating the Project is outside of the known Chemehuevi Traditional Use Area. They recommend contacting Tribes who do have cultural affiliation with the Project Area.

~~AB 52 consultation is ongoing as of the release of this Draft IS/MND (August 2023). The results of the AB 52 consultation process will be included as part of the Final IS/MND.~~

Formal consultation with ACBCI was initiated on September 2, 2023. As a result of consultation, the concerns of the ACBCI Tribal Historic Preservation Office were addressed and proper mitigation measures were proposed to ensure the protection of tribal cultural resources. Consultation was concluded on September 27, 2023.

Formal consultation with the Cahuilla Band of Indians was initiated on September 12, 2023. The Tribe requested more details about the construction phase. Following a meeting with CVWD, the Tribe noted there are culturally significant resources close to the Project vicinity and stated they would be interested in providing Native American monitors during ground disturbance if the Agua Caliente Band of Indians are unable to do so. They would also like to be notified of future project details and updates. Consultation was concluded on September 27, 2023.

4.18.3 Tribal Cultural Resources Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Project Impact Adequately Addressed in SMP PEIR	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:					
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American Tribe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Less than Significant with Mitigation Incorporated.

i-ii) On August 2, 2023, CVWD formally initiated AB 52 consultation and notified all Tribes listed above. On August 7, 2023, the Augustine Band of Cahuilla Indians responded to the notification letter stating that

they are unaware of specific cultural resources that may be affected by the Proposed Project, but would like to be notified should any cultural resources be discovered during Project development. On August 17, 2023, the ACBCI responded to the notification letter stating the Project Area is not located within the boundaries of the ACBCI reservation but is within the Tribe's Traditional Use Area. The ACBCI Tribal Historic Preservation Office requests formal government-to-government consultation under AB 52 in addition to copies of any cultural resource documentation, cultural resources inventory, record search results, and the presence of an approved Agua Caliente Native American Cultural Resource Monitor during ground disturbing activities.

Formal consultation with ACBCI was initiated on September 2, 2023. As a result of consultation, the concerns of the ACBCI Tribal Historic Preservation Office were addressed and proper mitigation measures were proposed to ensure the protection of tribal cultural resources. Consultation was concluded on September 27, 2023.

Formal consultation with the Cahuilla Band of Indians was initiated on September 12, 2023. The Tribe requested more details about the construction phase. Following a meeting with CVWD, the Tribe noted there are culturally significant resources close to the Project vicinity and stated they would be interested in providing Native American monitors during ground disturbance if the Agua Caliente Band of Indians are unable to do so. They would also like to be notified of future project details and updates. Consultation was concluded on September 27, 2023.

Searches of the SLF by the NAHC failed to indicate the presence of TCRs in the Project Area. If no tribal cultural resources are identified during the consultation process, a potentially significant impact to known tribal cultural resources would not occur. However, subsurface construction disturbances (e.g., excavation, grading) associated with the Proposed Project would have the potential to impact unknown tribal cultural resources. To ensure proper protection of any unknown resources, should they be encountered during project-related ground disturbance activities, Mitigation Measures CUL-PS-1 and CUL-PS-2, as described in Section 4.5 of this IS/MND would be required. Impacts would be less than significant with mitigation incorporated. In addition, tribal monitoring may be requested by the Tribes during AB 52 consultation.

4.18.4 Mitigation Measures

CUL-PS-1: Archaeological and Tribal Monitoring. Prior to the start of construction, the Project proponent shall retain a qualified professional archaeologist or tribal monitor representing a culturally affiliated tribe to monitor all ground-disturbing activities associated with undisturbed areas of the Project during construction. Monitoring is not required for placement of equipment, filling in excavations that were monitored, work conducted in previously excavated and graded soils such as WRP 7, above-ground construction activities, or redistribution of soils that were previously monitored (such as the return of stockpiles to use in backfilling). ~~At the discretion of the lead agency, b~~Both a professional archaeologist and tribal monitor may be required to monitor ground-disturbing activities associated with known sensitive areas of the Project during construction or in the instance of unanticipated discoveries.

The archaeologist shall meet, or work under the direct supervision of someone who meets, the Secretary of the Interior's professional qualifications standards for prehistoric and historic archaeology. The archaeologist and tribal monitor shall have the authority to temporarily halt ground-disturbing or construction-related work within 100 feet of any discovery of potential historical or archaeological resources in order to implement any Project-specific mitigation measures developed to address unanticipated discoveries.

CUL-PS-2: Post-Review Discoveries. If subsurface deposits believed to be cultural or human in origin are discovered during construction, all work must halt within a 100-foot radius of the discovery. A qualified professional archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards for prehistoric and historic archaeology, shall be retained to evaluate the significance of the find, and shall have the authority to modify the no-work radius as appropriate, using professional judgment and taking into account the opinion of the tribal monitor. The following notifications shall apply, depending on the nature of the find:

- If the professional archaeologist determines that the find does not represent a cultural resource, work may resume immediately, and no agency notifications are required.
- If the professional archaeologist determines that the find does represent a cultural resource from any time period or cultural affiliation, the archaeologist shall immediately notify the lead agencies. The agencies shall consult on a finding of eligibility and implement appropriate treatment measures, if the find is determined to be a Historical Resource under CEQA, as defined in Section 15064.5(a) of the CEQA Guidelines or a historic property under Section 106 NHPA, if applicable. Work may not resume within the no-work radius until the lead agencies, through consultation as appropriate, determine that the site either: 1) is not a Historical Resource under CEQA or a Historic Property under Section 106; or 2) that the treatment measures have been completed to their satisfaction.
- If the find represents a Native American or potentially Native American resource that does not include human remains, then he or she shall further notify the Agua Caliente Band of Cahuilla Indians and the Augustine Band of Cahuilla Indians. The agencies shall consult with the tribes on a finding of eligibility and implement appropriate treatment measures, if the find is determined to be a Historical Resource under CEQA, as defined in Section 15064.5(a) of the CEQA Guidelines. Preservation in place is the preferred treatment, if feasible. Work may not resume within the no-work radius until the lead agencies, through consultation as appropriate, determine that the site either: 1) is not a Historical Resource under CEQA, as defined in Section 15064.5(a) of the CEQA Guidelines; or 2) that the treatment measures have been completed to their satisfaction.

- If the find includes human remains, or remains that are potentially human, they shall ensure reasonable protection measures are taken to protect the discovery from disturbance (AB 2641). The archaeologist shall notify the Riverside County Coroner (per Section 7050.5 of the Health and Safety Code). The provisions of Section 7050.5 of the California Health and Safety Code, Section 5097.98 of the California PRC, and AB 2641 will be implemented. If the coroner determines the remains are Native American and not the result of a crime scene, the coroner will notify the NAHC, which then will designate a Native American Most Likely Descendant (MLD) for the Project (Section 5097.98 of the PRC). The designated MLD will have 48 hours from the time access to the property is granted to make recommendations concerning treatment of the remains. If the landowner does not agree with the recommendations of the MLD, the NAHC can mediate (Section 5097.94 of the PRC). If no agreement is reached, the landowner must rebury the remains where they will not be further disturbed (Section 5097.98 of the PRC). This will also include either recording the site with the NAHC or the appropriate Information Center; using an open space or conservation zoning designation or easement; or recording a reinternment document with the county in which the property is located (AB 2641). Work may not resume within the no-work radius until the lead agencies, through consultation as appropriate, determine that the treatment measures have been completed to their satisfaction.

4.19 Utilities and Service Systems

The analysis of utilities and service systems is tiered from the 2020 SMP PEIR and was addressed in Section 2.4, CEQA Overview, of that document. The 2020 SMP PEIR states construction and operation of the Master Plan projects, which are utility infrastructure projects, would not require a significant amount of new utilities to operate such facilities. As such, no further analysis of utilities and services systems was conducted (CVWD 2022).

Analysis for utilities and service systems is supplemented by the following information that is specific to the Project's environmental setting.

4.19.1 Environmental Setting

4.19.1.1 Water Service

The IWA and CVWD are responsible for providing water service to the City of Indio. IWA's service area covers approximately 38 square miles and encompasses the majority of the City and some of the unincorporated sphere of influence. The remaining northwest portion of the planning area, including the Project Area, is served by CVWD. CVWD's service area covers approximately 1,000 square miles from the San Geronio Pass to the Salton Sea, mostly within the Coachella Valley (City of Indio 2019a).

CVWD relies on a combination of water from groundwater, the Colorado River, State Water Project water, and recycled water. CVWD is also working on a demonstration desalination facility to treat drain water

and groundwater for potable and non-potable uses (City of Indio 2019a). CVWD obtains groundwater from both the Indio and the Mission Creek Subbasins. Imported water from the Colorado River is received through the Coachella Canal, a branch of the All-American Canal. This water is used for agricultural, golf course, and landscape irrigation purposes, as well as groundwater recharge. It is not used to meet municipal demands. Water Entitlement from the State Water Project is exchanged for Colorado River Water and is received from the Metropolitan Water District of Southern California's Colorado River Aqueduct and is used for groundwater recharge. It is not used to meet municipal demands (Water Systems Consulting, Inc. [WSC] 2021).

4.19.1.2 Wastewater and Storm Drainage

Wastewater service is provided to the City by the VSD, which serves a majority of the City's population, and CVWD, which treats the remaining percentage of Indio's wastewater. VSD operates a wastewater treatment plant at the northeast quadrant of Van Buren Street and Enterprise Way, just southwest of I-10. This plant treats approximately 6.5 MGD of wastewater (City of Indio 2019a). CVWD operates five WRPs, two of which (WRP 7 and WRP 10) generate recycled water for irrigation of golf courses and large landscaped areas (WSC 2021). CVWD's WRP 7 is within the Project Area, as the Project proposes upgrades to the existing tertiary treatment plant processes and an existing canal pump station.

Regional drainage facilities are constructed, operated, and maintained by the CVWD. Local drainage facilities are maintained by the City and generally convey runoff from local streets to the regional facilities. The Whitewater River Storm Channel, which is part of the Colorado River Basin Region, is the main regional drainage facility for Indio, eventually draining into the Salton Sea. The local storm drain system consists of gutters, engineered storm drains, and channels. The majority of these existing facilities are located south of the Whitewater River Storm Channel and I-10 (City of Indio 2019a).

4.19.1.3 Solid Waste

Burrtec Waste and Recycling Services provides the collection, transport, recycling, and disposal of residential and commercial solid waste for the City (City of Indio 2019a). Collection includes solid waste, recyclable materials, green waste, organic waste, construction and demolition debris, and bulky items which are delivered to a disposal facility, material recovery facility, organics processing facility, or another approved facility pursuant to the City's 2022 Waste Hauler Contract (City of Indio 2022b).

4.19.1.4 Electricity

Electricity service within the City is provided by IID (City of Indio 2019a).

4.19.1.5 Natural Gas

The Southern California Gas Company provides natural gas services to the City (City of Indio 2019a).

4.19.2 Utilities and Service Systems Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Project Impact Adequately Addressed in SMP PEIR	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Less than Significant Impact.

The Proposed Project would improve existing tertiary treatment plant processes and existing canal pump station at the WRP 7 water reclamation facility to reduce the use of NPW from the Coachella Canal by generation of more RW. The Proposed Project will not impact natural gas, electric power, or telecommunication facilities. The environmental effects from constructing the proposed pipeline improvements are described in this Initial Study. Impacts would be less than significant and no mitigation is required.

Would the Project:	Potentially Significant Impact	Project Impact Adequately Addressed in SMP PEIR	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry, and multiple dry years?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No Impact.

CVWD along with five other urban water suppliers collaborated on planning efforts related to water resources in the 2020 Coachella Valley Regional Urban Water Management Plan (RUWMP). According to the RUWMP, projected total gross water use by 2045 would be 164,966 acre-feet per year (AFY) and projected retail demands for water by 2045 would be 148,166 AFY. Urban water supplies during a normal year, single dry year, and multiple dry year are fully reliable (WSC 2021).

The agricultural irrigation, golf course irrigation, and groundwater recharge uses in the service area are not served from CVWD’s urban water system. Non-potable uses are served by sources such as the Coachella Canal, Mid-Valley Pipeline system, tertiary-treated recycled water, or private groundwater wells. Recycled water use within the service area is projected to be 16,800 AFY by 2045 and recycled water supplies is projected to be 16,800 AFY by 2045 (WSC 2021).

The Proposed Project would improve existing tertiary treatment plant processes and an existing canal pump station to reduce the usage of NPW from the Coachella Canal by generation of more RW. Construction of the Proposed Project would require minimal water during construction for compaction and dust control purposes. During operation, WRP 7 would continue to treat wastewater collected within CVWD’s service area and provide more RW, which helps manage groundwater overdraft. No impact would occur.

Would the Project:	Potentially Significant Impact	Project Impact Adequately Addressed in SMP PEIR	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c) Result in a determination by the wastewater treatment provider, which serves or may serve the Project that it has adequate capacity to serve the Project’s projected demand in addition to the provider’s existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Less than Significant Impact.

The Project Area includes WRP 7 which currently treats wastewater flows of 5 MGD. The secondary processes at the plant have 5 MGD capacity, and the tertiary processes including filtration and disinfection have a capacity of 2.5 MGD. As discussed above, the Proposed Project would improve existing tertiary treatment plant processes and an existing canal pump station. The NPW delivery pump station would be improved from 4,600 gpm to 10,400 gpm to provide delivery of NPW to both existing and Phase II users. The Project proposes to retrofit and improve the WRP 7 tertiary treatment system; with overall treated water effluent capacity from the facility remaining the same. Impacts would be less than significant.

Would the Project:	Potentially Significant Impact	Project Impact Adequately Addressed in SMP PEIR	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
d) Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Less than Significant Impact.

Minimal waste would be generated by the Proposed Project during construction. During operation the Proposed Project would not generate solid waste. Therefore, the Proposed Project would not generate solid waste in excess of State or local standards. Impacts would be less than significant, and no mitigation is required.

Would the Project:	Potentially Significant Impact	Project Impact Adequately Addressed in SMP PEIR	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No Impact.

Waste generated by the Proposed Project would comply with all applicable federal, state, and local statutes and regulations related to solid waste. No impact would occur, and no mitigation is required.

4.19.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.20 Wildfire

The analysis of wildfire is tiered from the 2020 SMP PEIR and was addressed in Section 2.4, CEQA Overview, of that document. The 2020 SMP PEIR states that Fire Hazard Severity Zones within the Coachella Valley are generally located along the east-facing slopes of the Santa Rosa-San Jacinto Mountains. The sanitation projects are sited within the Coachella Valley floor and are not in the Santa Rosa-San Jacinto Mountain hillsides, therefore wildfire impacts were found not to be significant (CVWD 2022).

Analysis for wildfire is supplemented by the following information that is specific to the Project’s environmental setting.

4.20.1 Environmental Setting

The City’s Planning Area is not prone to any major wildland fires due to its desert environment, which does not support large amounts of brush. Wildfire probability for the City is low with moderate severity (City of Indio 2019b). The General Plan area, including the Project Area, is not within a wildfire severity zone as designated by the California Department of Forestry and Fire Protection (CAL FIRE) (CAL FIRE 2023; City of Indio 2019a).

4.20.2 Wildfire Environmental Checklist and Discussion

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the Project:	Potentially Significant Impact	Project Impact Adequately Addressed in SMP PEIR	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No Impact.

The 2020 SMP PEIR states that Fire Hazard Severity Zones within the Coachella Valley are generally located along the east-facing slopes of the Santa Rosa-San Jacinto Mountains. The Proposed Project is not located within or near a state responsibility area and is not classified as a Very High Fire Hazard Severity Zone (VHFHSZ) (CAL FIRE 2023). Implementation of the Proposed Project would require construction activities to occur within the public ROW along Jefferson Street from Young Way to its connection with Avenue 38. Construction activities, which may temporarily restrict vehicular traffic, would be required to implement adequate and appropriate measures to facilitate the passage of persons and vehicles through/around any required road closures. The Proposed Project design would be submitted to and approved by the City's Fire and Police Departments prior to any construction activities to ensure consistency with applicable fire and building code regulations, including emergency access/evacuation routes. Upon construction completion, streets affected by construction would be returned to pre-disturbance conditions. No impact would occur.

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the Project:

	Potentially Significant Impact	Project Impact Adequately Addressed in SMP PEIR	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose Project occupants to, pollutant concentrations from, a wildfire or the uncontrolled spread of a wildfire?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No Impact.

The Proposed Project is not located within a state responsibility area and is not classified as a VHFHSZ (CAL FIRE 2023). The City is relatively flat with undeveloped hillsides along the northern boundary. Additionally, site topography at WRP 7 is comprised of natural grade and sunken earthen basins to support secondary treatment percolation. The overall WRP 7 site slopes downward from a high point on the northwest corner at an elevation of 53 feet to a low point on the southeast corner at an elevation of 47 feet. No impact would occur.

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the Project:

	Potentially Significant Impact	Project Impact Adequately Addressed in SMP PEIR	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No Impact.

The Proposed Project is not located within a state responsibility area and is not classified as a VHFHSZ (CAL FIRE 2023). The Proposed Project would improve existing tertiary treatment plant processes and an existing canal pump station including improving pipelines within the NPW distribution system. The Proposed Project would not require the installation or maintenance of associated infrastructure such as roads, fuel breaks, emergency water sources, power lines, or other utilities. No impact would occur.

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the Project:

	Potentially Significant Impact	Project Impact Adequately Addressed in SMP PEIR	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No Impact.

The Proposed Project is not located within a state responsibility area and is not classified as a VHFHSZ (CAL FIRE 2023). The City is relatively flat with undeveloped hillsides along the northern boundary. WRP 7 site topography is comprised of natural grade and sunken earthen basins to support secondary treatment percolation. The overall WRP 7 plant site slopes downward from a high point on the northwest corner at an elevation of 53 feet to a low point on the southeast corner at an elevation of 47 feet. Site grading will maintain approximate existing site elevations. Stormwater generated at the facility is directed to retention basins and does not leave the boundaries of the facility. Stormwater outside of the facility is directed away from the facility to an earthen stormwater dike running northwest to southeast on the northeast end of the WRP 7 site (Black & Veatch 2022). The Project Area is also relatively flat, therefore there is a low landslide risk. The Proposed Project would not expose people or structures to downslope or downstream flooding or landslides. No impact would occur.

4.20.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.21 Mandatory Findings of Significance

4.21.1 Mandatory Findings of Significance Environmental Checklist and Discussion

Does the Project:	Potentially Significant Impact	Project Impact Adequately Addressed in SMP PEIR	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Less than Significant with Mitigation Incorporated.

As discussed throughout this Initial Study, potentially significant impacts were identified for biological resources, cultural resources, paleontological resources, and tribal cultural resources. The Proposed Project’s impacts would be less than significant with the incorporation of Mitigation Measures BIO-2, BIO-3, and BIO-5; CUL-1 through CUL-2; and HYD-1 from the 2020 SMP PEIR and Mitigation Measures BIO-PS-1 through BIO-PS-5; CUL-PS-1 and CUL-PS-2; and GEO-PS-1 from this document.

Does the Project:	Potentially Significant Impact	Project Impact Adequately Addressed in SMP PEIR	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Less than Significant with Mitigation Incorporated.

Cumulative impacts are defined as two or more individual (and potentially less than significant) project effects that, when considered together or in concert with other projects combine to result in a significant impact within an identified geographic area. In order for a project to contribute to cumulative impacts, it must result in some level of impact on a project specific level.

As discussed throughout this Initial Study, potentially significant impacts were identified for biological resources, cultural resources, paleontological resources, and tribal cultural resources. The Proposed Project’s contribution to cumulative impacts would not be considerable with the incorporation of Mitigation Measures BIO-2, BIO-3, and BIO-5; CUL-1 through CUL-2; and HYD-1 from the 2020 SMP PEIR and Mitigation Measures BIO-PS-1 through BIO-PS-5; CUL-PS-1 and CUL-PS-2; and GEO-PS-1 from this document. Furthermore, other projects would be subject to CEQA and would undergo the same level of review as the Proposed Project and include mitigation measures to minimize potentially significant impacts.

Does the Project:	Potentially Significant Impact	Project Impact Adequately Addressed in SMP PEIR	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c) Have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Less than Significant with Mitigation Incorporated.

The checklist categories of: Air Quality, Greenhouse Gas Emissions, Hazards and Hazardous Materials, Cultural Resources, Geology and Soils, Hydrology and Water Quality, Population and Housing, Tribal Cultural Resources, Noise, Transportation, and Wildfire evaluate Project impacts that may have adverse effects on human beings, either directly or indirectly. All of the Project’s impacts on human beings, both direct and indirect, that are attributable to the Project were identified and mitigated where necessary. Therefore, the Proposed Project would not either directly or indirectly cause substantial adverse effects on human beings because all potentially adverse direct and indirect impacts of the Proposed Project are identified as having no impact, less than significant impact, or less than significant impact with mitigation. Direct and indirect impacts to human beings would be less than significant with the implementation of mitigation measures listed in this Initial Study.

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5.0 COMPLIANCE WITH FEDERAL REGULATIONS

CVWD is seeking funding for the Proposed Project under the SWRCB's Clean Water State Revolving Fund (CWSRF) Program, which is partially funded through the EPA. Because of the federal nexus with the EPA, projects seeking funding through the CWSRF Program are subject to federal laws and regulations (e.g., federal "cross-cutters"). Under the CWSRF Program, SWRCB uses a project's CEQA document along with federal cross-cutting documentation in place of a NEPA document; this document is termed a "CEQA-Plus" document. This section addresses the Project's compliance with federal laws and regulations to satisfy the CEQA-Plus requirements.

5.1 Federal Regulations Evaluation

5.1.1 Archaeological and Historic Preservation Act

The Archaeological and Historic Preservation Act (AHPA) is a salvage bill that provides for the preservation of historical and archaeological materials and data that might be lost or destroyed through federally funded or licensed activities or programs (54 U.S. Code [USC] sections 312501-312508). This includes flooding, the construction of access roads, relocation of railroads and highways, or any other federally funded activity that is associated with the construction of a dam or reservoir. The AHPA authorizes federal agencies to transfer up to 1 percent of the total amount authorized for the project to the Secretary of the Interior for archeological salvage. Under this law, historical and archaeological resources do not have to be eligible, or considered eligible, in the National Register of Historic Properties for an impact to occur (NPS 2023).

Pursuant to the terms of the Programmatic Agreement on Historic Preservation for the CWSRF, the EPA requires that the State Water Board carry out the requirements of federal regulation 36 CFR Section 800.4 through 800.6, and other applicable sections of 36 CFR Part 800. The EPA retains the responsibility for compliance with AHPA requirements (SWRCB 2017).

Record search results found that 16 previous cultural resource investigations have been conducted within the Project Areas or the 0.5-mile search radius, covering approximately 55 percent of the total area surrounding the Project Areas within the records search radius. Of the 16 studies, four were conducted within the Project Areas and the other 12 were within the 0.5-mile radius. These studies revealed the presence of pre-contact sites, including lithic scatters, debitage, manos, and metates, and one historical site, the Coachella Canal.

The CHRIS records search results revealed that four previously recorded pre-contact and historic-era cultural resources are located within 0.5 mile of the Project Area. Of these, three are believed to be associated with Native American occupation of the vicinity, and one is a historic-era site associated with early European-American irrigation, known as the Coachella Canal. There are no previously recorded cultural resources within the Project Area. As a result of the field survey, one new cultural resource was identified within Project Area C: WRP-1, a segment of Jefferson Street. There always remains the potential for ground-disturbing activities to expose previously unrecorded cultural resources. Implementation of

Mitigation Measures CUL-1 and CUL-2, from the 2020 SMP PEIR, and Mitigation Measure CUL-PS-1 and CUL-PS-2 would reduce impacts to cultural resources to less than significant.

5.1.2 Clean Air Act

General Conformity ensures that the actions taken by federal agencies do not interfere with a state's plans to attain and maintain national standards for air quality.

Established under the Clean Air Act (section 176(c)(4)), the General Conformity rule plays an important role in helping states improve air quality in those areas that do not meet the NAAQS. Under the General Conformity rule, federal agencies must work with state and local governments in a nonattainment or maintenance area to ensure that federal actions conform to the air quality plans established in the applicable state or tribal implementation plan (EPA 2023a). The overall purpose of the General Conformity rule is to ensure that:

- Federal activities do not cause or contribute to new violations of NAAQS;
- Actions do not worsen existing violations of the NAAQS; and
- Attainment of the NAAQS is not delayed.

Predicted annual construction-generated emissions for the Proposed Project are summarized in Table 4.3-1. Construction-generated emissions are short term and of temporary duration, lasting only as long as construction activities occur, and would not be considered a significant air quality impact since the volume of pollutants generated does not exceed the Conformity Determination thresholds.

5.1.3 Coastal Barriers Resources Act

The Coastal Barrier Resources Act (CBRA) of 1982 designated various undeveloped coastal barriers for inclusion in the Coastal Barrier Resources System (CBRS). The CBRA encourages the conservation of storm-prone and dynamic coastal barriers by withdrawing the availability of federal funding and financial assistance within the CBRS (USFWS 2023c).

The Proposed Project is not within the CBRS, as it is in the State of California. The CBRS encompasses areas along the Atlantic, Gulf of Mexico, Great Lakes, U.S. Virgin Islands, and Puerto Rico coasts but not the Pacific Coast. Therefore, the Coastal Barriers Resources Act does not apply to the Project.

5.1.4 Coastal Zone Management Act

The Coastal Zone Management Act (CZMA) was passed by Congress to encourage coastal states to develop and implement a Coastal Zone Management Program (CZMP). The intents of CZMPs are to: protect natural resources; manage development in high hazard areas; give development priority to coastal-dependent uses; provide public access for recreation; prioritize water-dependent uses; and coordinate state and federal actions (NOAA 2023). The federal government certified the California Coastal Management Program in 1977, the enforceable policies of which are found in Chapter 3 of the California Coastal Act of 1976, as amended (California Coastal Commission 2023).

The Project would be located in the City of Indio, over 75 miles east of the Pacific Coast. None of the Project's components would be located within the coastal zone, thus the CZMA does not apply to the Project.

5.1.5 Endangered Species Act, Section 7

The ESA (16 USC 1531 et seq.) and subsequent amendments establish legal requirements for the conservation of endangered and threatened species and the ecosystems upon which they depend. The ESA is administered by the USFWS for terrestrial species, and by the National Marine Fisheries Service (NMFS) for marine species and anadromous fish. Under the ESA, species may be listed as either endangered or threatened. Section 7(a)(2) of the ESA requires that for actions authorized, funded, or carried out by a federal agency, that the agency shall consult with USFWS and/or NMFS to ensure that their actions are not likely to jeopardize the continued existence of any threatened or endangered species, or result in the destruction or adverse modification of critical habitat of the endangered or threatened species (USACE 2023a).

The Coachella Valley fringe-toed lizard is the only federally listed Threatened and State listed Endangered reptile species that has low to moderate potential to occur in the Study Area. This is a highly specialized endemic lizard that is restricted to windblown sand deposits (dunes) on the floor of the Coachella Valley in Riverside County, California. Further, no incidental sightings of this species were made during the site assessment. However, mitigation measures discussed in Section 4.1.2 of this report would reduce the potential impacts to a less than significant level. Additionally, CVWD is a permittee included on the CVMSHCP's incidental take permit issued by USFWS in compliance with Section 7 which allows take authorization for Covered wildlife species (USFWS 2008). Therefore, the Project would not have the potential to violate the ESA.

5.1.6 Environmental Justice

In 1994, President Clinton issued the Executive Order (EO) 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations," to focus federal attention on the environmental and human health effects of federal actions on minority and low-income populations with the goal of achieving environmental protection for all communities (USEPA 2022). EO 12898 directs federal agencies to:

- Identify and address the disproportionately high and adverse human health or environmental effects of their actions on minority and low-income populations, to the greatest extent practicable and permitted by law
- Develop a strategy for implementing environmental justice
- Promote nondiscrimination in federal programs that affect human health and the environment, as well as provide minority and low-income communities access to public information and public participation.

The Council on Environmental Quality (CEQ) oversees federal compliance with EO 12898 (CEQ 1997). According to the CEQ environmental justice guidelines, minority populations should be identified if:

- A minority population percentage either exceeds 50 percent of the population of the affected area, or
- If the minority population percentage of the affected area is meaningfully greater than the minority population percentage in the general population or other appropriate unit of geographic analysis (e.g., a governing body’s jurisdiction, neighborhood census tract, or other similar unit).

A project may involve an environmental justice concern if the project could create new disproportionate impacts on minority, low-income, or indigenous populations; exacerbate existing disproportionate impacts on minority, low-income, or indigenous populations; or present opportunities to address existing disproportionate impacts on minority, low-income, or indigenous populations that are addressable through the project (SWRCB 2017).

The City’s 6th Cycle Housing Element (2021-2029) provides race and ethnicity characteristics and income information for the City of Indio based on the U.S. Census 2019 American Community Survey. Table 5.1-1 shows Year 2019 ethnic and racial characteristics of the City’s population.

Table 5.1-1. Race and Ethnicity (2019)		
Race/Ethnicity	Number	Percent of Total
White, Non-Hispanic	26,357	29.5
Black, Non-Hispanic	2,747	3.1
American Indian and Alaska Native	156	0.2
Asian or Pacific Islander	1,915	2.1
Hispanic (Any Race)	57,439	64.2
Other	103	0.1
Two or More Races	752	0.8
Total	89,469	100

Source: City of Indio 2022c

As shown, the City of Indio’s minority population is greater than 50 percent. For the region, Hispanic residents represent 47 percent of the population and White (non-Hispanic) residents represent 37 percent (City of Indio 2022c).

The California Department of Housing and Community Development (HCD) identifies income categories based on the area median income (AMI) of Riverside County. The AMI for Riverside County in 2020 was \$75,300 for a hypothetical family of four. HCD’s categories include the following:

- Extremely low-income: household earning up to 30 percent of the AMI
- Very low-income: households earning between 31 to 50 percent of the AMI
- Low-income: households earning between 51 to 80 percent of the AMI
- Moderate-income: households earning between 81 to 120 percent of the AMI
- Above moderate-income: households earning over 120 percent of the AMI

The Department of Housing and Urban Development's Comprehensive Housing Affordability Strategy estimates for 2013 to 2017 show that approximately 53 percent of the City's households had incomes in the moderate or above-moderate income level, approximately 20 percent of households had incomes in the low-income level, and approximately 27 percent of households had incomes in the very low and extremely low-income levels (City of Indio 2022c).

Senate Bill (SB) 535 (2012) established requirements for minimum funding levels to disadvantaged communities (DACs) and made CalEPA responsible for identifying DACs based on "geographic, socioeconomic, public health, and environmental hazard criteria." Additionally, AB 1550 (2016) directed CalEPA to identify DACs and establish minimum funding levels. In May 2022, CalEPA updated the DAC designation to formally designate the following four categories of disadvantaged geographic areas (California Office of Environmental Health Hazard Assessment [OEHHA] 2023):

- Census tracts receiving the highest 25 percent of overall scores in CalEnviroScreen 4.0 (1,984 tracts);
- Census tracts lacking overall scores in CalEnviroScreen 4.0 due to data gaps, but receiving the highest 5 percent of CalEnviroScreen 4.0 cumulative pollution burden scores (19 tracts);
- Census tracts identified in the 2017 DAC designation as disadvantaged, regardless of their scores in CalEnviroScreen 4.0 (307 tracts); and
- Lands under the control of federally recognized Tribes.

CalEPA's SB 535 Disadvantage Communities Map tool shows the DACs census tracts and tribal areas as of 2022. The Project Area does not fall within the overlay area and therefore does not contain any DACs (OEHHA 2023).

The California Department of Water Resources (DWR) Disadvantaged Communities Mapping Tool is designed to assist in the evaluation of DACs throughout the state, as defined within the various grants programs that are the responsibility of DWR's Financial Assistance Branch. Based on this mapping tool, the census block groups containing the Project Area is within a DAC overlay for the Census American Community Survey (ACS) 2014 to 2018 dataset. However, under the most recent ACS 2016 to 2020 dataset, the Project Area is no longer within the DAC overlay area (DWR 2023).

Potential adverse impacts of the Project are limited to short-term, construction-related noise effects. Once completed, the Project would be beneficial to the NPW/RW users in the WRP 7 service area by improving existing tertiary treatment plant processes and an existing canal pump station in order to generate more RW and reduce the usage of NPW from the Coachella Canal. Therefore, the Project does not involve any activity that is likely to be of interest to or could have a disproportionate impact upon minority or low-income populations.

On August 2, 2023, CVWD formally initiated consultation with the tribes listed in Section 4.18 Tribal Cultural Resources and received responses from the Augustine Band of Cahuilla Indians and the Agua Caliente Band of Cahuilla Indians. The Augustine Band of Cahuilla Indians were unaware of specific cultural resources that may be affected by the Proposed Project, but requested they be notified if any cultural resources are discovered during Project development. The ACBCI requested formal government-to-government consultation under AB 52 in addition to copies of any cultural resource documentation,

cultural resources inventory, record search results, and the presence of an approved Agua Caliente Native American Cultural Resource Monitor during ground disturbing activities.

CVWD is awaiting responses from any other Tribes that wish to consult. The results of the consultation process and any proposed mitigation measures will be incorporated in the Final IS/MND.

Searches of the SLF by the NAHC failed to indicate the presence of TCRs in the Project Area. If no tribal cultural resources are identified during the consultation process, a potentially significant impact to known tribal cultural resources would not occur. However, subsurface construction disturbances (e.g., trenching, excavation, grading) associated with the Proposed Project would have the potential to impact unknown tribal cultural resources. To ensure proper protection of any unknown resources, should they be encountered during project-related ground disturbance activities, Mitigation Measures CUL-PS-1 and CUL-PS-2 discussed in Section 4.5.5 and Section 4.18.4 of this report would reduce potential impacts to cultural resources and TCRs to a less than significant level. Therefore, the Project would not have a disproportionate impact upon indigenous populations or tribes.

5.1.7 Farmland Protection Policy Act

The Farmland Protection Policy Act (FPPA) is intended to minimize the contribution of federal programs to the unnecessary and irreversible conversion of farmland to nonagricultural uses. It assures that to the extent possible federal programs are administered to be compatible with state, local units of government, and private programs and policies to protect farmland. It does not authorize the federal government to regulate the use of private or nonfederal land, or in any way, affect the rights of property owners. Under the FPPA, farmland includes prime farmland, unique farmland, and land of statewide or local importance. Farmland subject to FPPA requirements does not have to be currently used for cropland. It can be forest land, pastureland, cropland, or other land, but not water or urban built-up land (NRCS 2023b).

The Project is located on land designated as Urban and Built-Up Land and Other Land. The Project Area is bordered to the north, south, and east by Urban and Built-Up Land, Farmland of Local Importance, Prime Farmland, and Other Land and to the east by Other Land and Urban and Built-Up Land (DOC 2023). The Project Area is not currently used for agriculture and no Prime or Unique Farmlands or Farmland of Statewide Importance is located within the Project Area. As such, the Project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance.

5.1.8 Fish and Wildlife Coordination Act

The Fish and Wildlife Coordination Act (16 USC 661-666(e)), approved in 1934 and amended in 2020, directs USFWS to investigate and report on proposed federal actions that affect any stream or other body of water and to provide recommendations to minimize impacts on fish and wildlife resources. The provisions of Section 662(a) and Section 663(a) do not apply to those projects for the impoundment of water where the maximum surface area of such impoundments is less than ten acres, nor to activities for or in connection with programs primarily for land management and use carried out by federal lands under their jurisdiction (SWRCB 2017).

Project activities may affect fish and wildlife resources. A manmade lake is located within the Project Area at Young's Farm property, and communication with the landowner indicated that the lake contains some species of fish. The Project Area also contains numerous water basins, two of which contained standing water at the time of the biological survey and were observed to be utilized by various avian species. Additionally, these basins may serve as foraging habitat for many wildlife species in the area, including, but not limited to, bat species. Each of these aquatic features are less than ten acres in size, and therefore, the provisions stipulated in Section 662(a) and Section 663(a) do not apply to this Project. Despite this, mitigation measures have been proposed and discussed in Section 4.4.3 of this report that would reduce potential impacts to wildlife resources to a less than significant level. Implementation of these mitigation measures eliminates the potential for this Project to violate the Fish and Wildlife Coordination Act.

5.1.9 Floodplain Management

EO 13690, The Federal Flood Risk Management Standard (January 30, 2015) revises EO 11988, Floodplain Management (May 24, 1977), and directs federal agencies to take the appropriate actions to reduce risk to federal investments, specifically to update their flood-risk reduction standards. The goal of this directive is to improve the resilience of communities and federal assets against the impacts of flooding. These impacts are anticipated to increase over time due to the effects of climate change and other threats (FEMA 2019). FEMA's FIRMs are official community maps that shows special flood hazard areas and risk premium zones (FEMA 2020).

As explained in Section 4.10 (Hydrology and Water Quality), FEMA FIRM Number 06065C1620G, Panel 1620G shows the Project Area is within Zone A, a special flood hazard area with no Base Flood Elevations determined (FEMA 2008). The City adopted a Local Hazard Mitigation Plan (LHMP) in 2018. The LHMP identified flooding as having an above average severity and above average probability. CVWD approved a regional flood project that will provide protection for northeast Indio and the surrounding area. This North Indio Regional Flood Control System will collect flood flows from the outlets of the Sun City Palm Desert Whitewater River/stormwater channels and convey them to the Sun City Shadow Hills channels, which will ultimately connect to the Coachella Valley Storm Channel. The second phase of this project includes obtaining levee accreditation from FEMA for the existing East Side Dike. This will reduce the likelihood of the hazard.

All Project improvements outside the WRP 7 property would be underground and would not redirect or impede flood waters. Improvements to WRP 7 would add impervious surfaces that could potentially create additional flooding on- or offsite. There would be some changes to site drainage patterns, surface runoff, and flood management. Stormwater generated at the facility is directed to retention basins onsite and does not leave the boundaries of the facility, thereby preventing onsite and offsite flooding. Therefore, no impacts related to flood hazards or flood water flows would occur.

5.1.10 Magnuson-Stevens Fishery Conservation and Management Act

The Magnuson-Stevens Fishery Conservation and Management Act (MSA) (Public Law 104-267) passed in 1976 and was amended by the Sustainable Fisheries Act of 1996 (Public Law 104-297) and the Magnuson-Stevens Fishery Conservation and Management Reauthorization Act in 2007. The MSA, as amended,

governs marine fisheries management in U.S. federal waters out to 200 nautical miles from shore and encourages “long-term biological and economic sustainability of our nation's marine fisheries.” The goals of the MSA are to prevent overfishing, to rebuild overfished stocks, to increase long-term economic and social benefits, and to ensure a safe and sustainable supply of seafood. The act is in place to protect our natural resources, to maximize the possible use of these resources, and to make sure the use of marine resources is done in a safe manner. Amendments to the 1996 MSA require the identification of Essential Fish Habitat (EFH) for federally managed species and the implementation of measures to conserve and enhance this habitat. Any project requiring federal authorization is required to complete and submit an EFH Assessment with the application and either show that no significant impacts to the essential habitat of managed species are expected or identify mitigations to reduce those impacts. Under the MSA, Congress defined EFH as “those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity” (16 USC § 1802(10)). The EFH provisions of the MSA offer resource managers a means to heighten consideration of fish habitat in resource management. Pursuant to section 305(b)(2), federal agencies shall consult with the National Marine Fisheries Service regarding any action they authorize, fund, or undertake that might adversely affect EFH. The Proposed Project is over 75 miles inland and would not affect any fisheries or EFH. Therefore, the MSA does not apply to the Project.

5.1.11 Migratory Bird Treaty Act of 1918

The MBTA of 1918 (16 USC 703-712) prohibits the take (including killing, capturing, selling, trading, and transport) of protected migratory bird species, including eggs or active nests, except as permitted by regulation (e.g., licensed hunting of waterfowl or upland game species) by the USFWS. The MBTA states that it applies only to migratory bird species that are native to the United States or U.S. territories, and that a native migratory bird species is one that is present as a result of natural biological or ecological processes (USFWS 1918).

As described in Section 4.1.2 of this IS/MND, birds protected under the MBTA could nest within existing structures, shrubs, and trees on and adjacent to the Project Area. Mitigation Measure BIO-PS-5 - Preconstruction Survey for Nesting Birds requires that ground-disturbing and vegetation-disturbing work be completed during the non-nesting season to avoid impacts to nesting birds. If this is determined to be infeasible, a pre-construction survey by a qualified biologist shall be conducted prior to ground disturbing activities no more than three days in advance of vegetation clearing/ground disturbance activities. Active bird nests identified during the survey effort shall be avoided until such time that the qualified biologist has determined that the nest(s) is vacant. Depending on the location of the active nest(s), the qualified biologist may establish a no-work buffer around the active nest. Implementation of Mitigation Measure BIO-PS-5 would ensure the Project would not violate the MBTA.

5.1.12 National Historic Preservation Act, Section 106

The National Historic Preservation Act (NHPA) of 1966, as amended sets forth the responsibilities that federal agencies must meet in regard to cultural resources, especially in regard to Section 106 as set forth in the regulations (36 CFR Part 800). The NHPA establishes a national preservation program and a system of procedural protections, which encourage both the identification and protection of historic resources, including archeological resources, at the federal level and indirectly at the state and local level. Federal

agencies must conduct the necessary studies and consultations to identify cultural resources that may be affected by an undertaking, evaluate cultural resources that may be affected to determine if they are eligible for the NRHP (that is, whether identified resources constitute historic properties), and assess whether such historic properties would be adversely affected. Historic properties are resources listed on or eligible for listing on the NRHP (36 CFR 800.16[1]). A property may be listed in the NRHP if it meets criteria provided in the NRHP regulations (36 CFR 60.4). Typically, such properties must also be 50 years or older (36 CFR 60.4[d]). The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, or association and: (A) That are associated with events that have made a significant contribution to the broad patterns of our history; or (B) That are associated with the lives of persons significant in our past; or (C) That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess artistic value, or that represent a significant and distinguishable entity whose components may lack individual distinction; or (D) That have yielded, or may be likely to yield, information important in prehistory or history. Section 106 defines an adverse effect as an effect that alters, directly or indirectly, the qualities that make a resource eligible for listing in the NRHP (36 CFR 800.5[a][1]). Consideration must be given to the property's location, design, setting, materials, workmanship, feeling, and association, to the extent that these qualities contribute to the integrity and significance of the resource. Adverse effects may be direct and reasonably foreseeable or may be more remote in time or distance (36 CFR 8010.5[a][1]).

As discussed in Section 4.5 (Cultural Resources) of this IS/MND, the Historic Property Identification Report completed by ECORP (2023), analyzed the APE based on the provisions for the treatment of cultural resources contained within Section 106 of the NHPA. A record search was conducted in order to determine the potential for the Project to adversely affect cultural resources eligible for listing on the NRHP. As part of this process, the horizontal APE consists of all areas where activities associated with a project are proposed and, in the case of this Project, equals the Project Area subject to environmental review under the National Environmental Policy Act and CEQA. This includes areas proposed for construction, vegetation removal, grading, trenching, stockpiling, staging, paving, and other elements in the official Project description. The horizontal APE is illustrated in Figure 1 and represents the survey coverage area. Project Area A is approximately 69.62 acres and measures 0.48 mile long by 0.23 mile wide. Project Area B is approximately 0.16 acres and measures approximately 113 feet long by 76 feet wide. Project Area C, the Pipeline Alignment, measures 2,159.5 feet long by 50 feet wide.

The vertical APE is described as the maximum depth below the surface to which excavations for project foundations and facilities will extend. Therefore, the vertical APE for this Project includes all subsurface areas where archaeological deposits could be affected. The subsurface vertical APE varies across the Project Areas. The maximum depth is assumed to extend as deep as 20 feet below the current surface, which is typically the greatest depth for buried utilities; therefore, a review of geologic and soils maps was necessary to determine the potential for buried archaeological sites that cannot be seen on the surface.

The vertical APE also is described as the maximum height of structures that could impact the physical integrity and integrity of setting of cultural resources, including districts and traditional cultural properties. For this Project, the above-surface vertical APE is assumed to be less than 50 feet above the surface.

Record search results found that 16 previous cultural resource investigations have been conducted within the Project Areas or the 0.5-mile search radius, covering approximately 55 percent of the total area surrounding the Project Areas within the records search radius. Of the 16 studies, four were conducted within the Project Areas and the other 12 were within the 0.5-mile radius. These studies revealed the presence of pre-contact sites, including lithic scatters, debitage, manos, and metates, and one historical site, the Coachella Canal.

The CHRIS records search results revealed that four previously recorded pre-contact and historic-era cultural resources are located within 0.5 mile of the Project Area. Of these, three are believed to be associated with Native American occupation of the vicinity, and one is a historic-era site associated with early European-American irrigation, known as the Coachella Canal. There are no previously recorded cultural resources within the Project Area. As a result of the field survey, one new cultural resource was identified within Project Area C: WRP-1, a segment of Jefferson Street. Resource WRP-1 was evaluated using NRHP and CRHR eligibility criteria and found to be not eligible for listing in the NRHP or CRHR under any criteria (ECORP 2023). Therefore, neither resource is considered a historical resource under CEQA or a historic property under Section 106 of the NHPA and the Project would not violate the NHPA.

5.1.13 Protection of Wetlands

The purpose of EO 11990 (May 24, 1977) is to minimize the destruction, loss or degradation of wetlands and to preserve and enhance the natural and beneficial values of wetlands, and to preserve and enhance the natural and beneficial values of wetlands in carrying out the agency's responsibilities for (1) acquiring, managing, and disposing of Federal lands and facilities; and (2) providing Federally undertaken, financed, or assisted construction and improvements; and (3) conducting Federal activities and programs affecting land use, including but not limited to water and related land resources planning, regulating, and licensing activities (EPA 2023b). To meet these objectives, EO 11990 requires federal agencies, in planning their actions, to consider alternatives to wetland sites and limit potential damage if an activity affecting a wetland cannot be avoided.

As described in Section 4.4 (Biological Resources) of this Initial Study, the Proposed Project contains a man-made agricultural stock pond supplied by groundwater from a private well at the owner's discretion. At the time of a June 2023 field survey, small amounts of emergent vegetation were present along the bank and submergent vegetation was visible within the pond. This feature is not considered jurisdictional to USACE under the current guidelines. The manmade lake does not possess a surface hydrologic connection to any downstream Waters of the U.S. In addition, the manmade lake does not support any surface water-related interstate commerce. The manmade lake is an agricultural pond created in upland and is filled by an onsite groundwater well. Under current federal definition of Waters of the U.S., this agricultural pond would not be regulated under Section 404 of the Clean Water Act.

5.1.14 Rivers and Harbors Act, Section 10

The Rivers and Harbors Act of 1899 (RHA) (33 USC Section 401 et seq.) is the initial authority for the USACE regulatory permit program to protect navigable waters in the development of harbors and other construction and excavation. Section 10 of the RHA requires authorization from the Secretary of the Army, acting through USACE, for the construction of any structure in or over any navigable water of the United States. Structures or work outside the limits defined for navigable waters of the United States require a Section 10 permit if the structure or work affects the course, location, or condition of the water body. The law applies to any dredging or disposal of dredged materials, excavation, filling, rechannelization, or any other modification of a navigable water of the United States, and applies to all structures. It includes, without limitation, any wharf, dolphin, weir, boom breakwater, jetty, groin, bank protection (e.g., riprap, revetment, bulkhead), mooring structures such as pilings, aerial or subaqueous power transmission lines, intake or outfall pipes, permanently moored floating vessel, tunnel, artificial canal, boat ramp, aids to navigation, and any other permanent, or semi-permanent obstacle or obstruction (USACE 2023b).

The Proposed Project involves improvements to existing tertiary treatment plant processes and an existing canal pump station as well as installation of approximately 2,500 linear feet of NPW pipeline to connect Young's Farmland to the existing NPW pipeline on Avenue 38. The Project does not include the construction of any structure in or over any navigable water of the United States, and would not require a Section 10 permit. The RHA does not apply to the Project.

5.1.15 Safe Drinking Water Act

The Safe Drinking Water Act of 1974 (SDWA) was established to protect the quality of drinking water in the U.S. This law focuses on all waters actually or potentially designed for drinking use, whether from above ground or underground sources. The SDWA authorizes EPA to establish minimum standards to protect tap water and requires all owners or operators of public water systems to comply with these primary (health-related) standards. The EPA also establishes minimum standards for state programs to protect underground sources of drinking water from endangerment by underground injection of fluids (EPA 2023c). Under this SDWA, Congress emphasizes preventing contamination of aquifers that are the sole source of drinking water for a community under the SDWA.

The Proposed Project is located in the City of Indio within Riverside County, California. Designated sole source aquifers in California are located in Fresno County, Scotts Valley, and on the California/Mexico border, none of which would be in the vicinity of the Proposed Project (EPA 2023d). Therefore, the SDWA does not apply to the Project.

5.1.16 Wild and Scenic Rivers Act

The Wild and Scenic Rivers Act (16 USC Section 1271 et seq.) establishes the National Wild and Scenic Rivers System (NWSRS) for the protection of certain selected rivers with important scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar values. These rivers shall be preserved in free-flowing conditions and they and their immediate environments shall be protected. Rivers are classified as wild, scenic, or recreational. The Act designates specific rivers for inclusion in the NWSRS and prescribes the methods and standards by which additional rivers may be added. Regardless of classification, each

river in the NWSRS is administered with the goal of protecting and enhancing the values that caused it to be designated. Designation neither prohibits development nor gives the federal government control over private property. Recreation, agricultural practices, residential development, and other uses may continue. The Act purposefully strives to balance dam and other construction at appropriate sections of rivers with permanent protection for some of the country's most outstanding free-flowing rivers. To accomplish this, it prohibits federal support for actions such as the construction of dams or other instream activities that would harm the river's free-flowing condition, water quality, or outstanding resource values.

There are no wild and scenic rivers within the vicinity of the Proposed Project. The nearest designated wild and scenic river in the National Wild and Scenic Rivers System is Palm Canyon Creek from the southern boundary of Section 6, Township 7 South, Range 5 East to the San Bernardino National Forest boundary in Section 1, Township 6 South, Range 4 East, located approximately 17 miles southeast of the City (NWSRS 2023). Therefore, no portion of the Project is located within or near a designated wild and scenic river.

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6.0 ALTERNATIVES DESCRIPTIONS AND ANALYSIS

CWSRF projects must undergo an alternatives analysis except for projects that are statutorily or categorically exempt.

The alternatives analysis is included in the CWSRF Grant Funding Project Environmental Report submitted as part of the CWSRF technical package. Please refer to Appendix G.

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8.0 REFERENCES

- Albert A. Webb Associates (Webb Associates). 2019. City of Indio Master Drainage Plan Update, <https://www.indio.org/home/showpublisheddocument/2735/638006890667970000>. Accessed April 17, 2023.
- Black & Veach. 2022. Final Preliminary Design Report, Water Reclamation Plant No. 7 (WRP 7) Phase 1 Non-Potable Water Improvements WR7022/WF0912436. Prepared for CVWD. May 2022.
- California Air Resources Board (CARB). 2022. State and Federal Area Designation Maps, <http://www.arb.ca.gov/desig/adm/adm.htm>.
- California Bat Working Group (CBWG). 2022. Bats in Swallow Nests (rev. 4 April 2022), <https://www.calbatwg.org/resources/>
- California Coastal Commission. 2023. Federal Consistency, <https://www.coastal.ca.gov/fedcd/fedcndx.html>. Accessed April 7, 2023.
- California Department of Conservation (DOC). 2023. California Important Farmland Finder, <https://maps.conservation.ca.gov/DLRP/CIFF/>. Accessed February 23, 2023.
- California Department of Fish and Wildlife (CDFW). 2023. RareFind California Department of Fish and Game Natural Diversity Database (CNDDDB). California. Sacramento, CA, California Department of Fish and Wildlife, Biogeographic Data Branch.
- _____. 2012. Staff Report on Burrowing Owl Mitigation, <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=83843>.
- California Department of Forestry and Fire Protection (CAL FIRE). 2023. Fire Hazard Severity Zone Viewer, <https://egis.fire.ca.gov/FHSZ/>. Accessed March 6, 2023.
- California Department of Transportation (Caltrans). 2023. California State Scenic Highway System Map, <https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aaca>. Accessed February 14, 2023.
- _____. 2020. Transportation and Construction Vibration Guidance Manual.
- _____. 2013. Technical Noise Supplement to the Traffic Noise Analysis Protocol.
- _____. 2002. California Airport Land Use Planning Handbook.
- California Department of Water Resources (DWR). 2023. DAC Mapping Tool, <https://gis.water.ca.gov/app/dacs/>. Accessed August 14, 2023.
- California Energy Commission (CEC). 2022. 2021 Total System Electric Generations in Gigawatt Hours, <https://www.energy.ca.gov/data-reports/energy-almanac/california-electricity-data/2021-total-system-electric-generation>.
- _____. 2006. Refining Estimates of Water Related Energy Use in California.

- California Environmental Protection Agency (CalEPA). 2022. Cortese List Data Resources, <https://calepa.ca.gov/sitecleanup/corteselist/>. Accessed June 21, 2022.
- California Native Plant Society (CNPS). 2023. Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.39). Retrieved in May 2023 from <http://www.rareplants.cnps.org>.
- California Office of Environmental Health Hazard Assessment (OEHHA). 2023. SB 535 Disadvantaged Communities, <https://oehha.ca.gov/calenviroscreen/sb535>. Accessed August 9, 2023.
- City of Indio. 2022a. City of Indio Unified Development Code, <https://www.indio.org/home/showpublisheddocument/2822/638015996407330000>. Accessed February 13, 2023.
- _____. 2022b. Amended and Restated Franchise Agreement between the City of Indio and Burrtec Waste and Recycling Services, LLC for Solid Waste Collection Service, <https://www.indio.org/home/showpublisheddocument/3549/638112831682630000>. Accessed February 15, 2023.
- _____. 2022c. City of Indio 6th Cycle Housing Element (2021-2029), <https://www.indio.org/home/showpublisheddocument/3393/638065436124400000>. Accessed April 12, 2023.
- _____. 2019a. City of Indio General Plan, <https://www.indio.org/home/showpublisheddocument/3321/638053330127130000>. Accessed February 13, 2023.
- _____. 2019b. Final Environmental Impact Report for the City of Indio General Plan Update Indio, California, <https://www.indio.org/home/showpublisheddocument/924/637874293008870000>. Accessed March 17, 2023.
- Climate Registry. 2016. General Reporting Protocol for the Voluntary Reporting Program version 2.1. January 2016. <http://www.theclimateregistry.org/wp-content/uploads/2014/11/General-Reporting-Protocol-Version-2.1.pdf>.
- Coachella Valley Association of Governments (CVAG). 2007. Coachella Valley Multiple Species Habitat Conservation Plan, <https://cvmshcp.org/plan-documents/>.
- Coachella Valley Water District (CVWD). 2022. Coachella Valley Water District Sanitation Master Plan Update 2020 Final Program Environmental Impact Report, <http://www.cvwd.org/492/Sanitation-Master-Plan-Update-2020>. November 2022.
- Council on Environmental Quality (CEQ). 1997. Environmental Justice Guidance Under the National Environmental Policy Act, https://www.epa.gov/sites/default/files/2015-02/documents/ej_guidance_nepa_ceq1297.pdf. Accessed April 7, 2023.
- Crockett, Alexander G. 2011. Addressing the Significance of Greenhouse Gas Emissions Under CEQA: California's Search for Regulatory Certainty in an Uncertain World.

- Department of Toxic Substances Control (DTSC). 2023. EnviroStor Database, <https://www.envirostor.dtsc.ca.gov/public/>. Accessed February 24, 2023.
- Desert Sands Unified School District (DSUSD). 2023. About DSUSD, https://www.dsusd.us/about_dsusd. Accessed February 15, 2023.
- ECORP Consulting, Inc. (ECORP). 2023. Historic Property Identification Report for the Water Reclamation Plant No. 7 Tertiary Treatment Improvements and MP 113.2 Pump Station Rehabilitation Project. June.
- Federal Emergency Management Agency (FEMA). 2022. Federal Flood Risk Management Standard, <https://www.fema.gov/floodplain-management/intergovernmental/federal-flood-risk-management-standard>. Accessed April 10, 2023.
- _____. 2020. Flood Map Products, <https://www.fema.gov/flood-maps/products-tools/products>. Accessed April 10, 2023.
- _____. 2008. Flood Insurance Rate Map, Map Number 06065C1620G Panel 1620G. August 28, 2008.
- Federal Highway Administration (FHWA). 2011. Effective Noise Control During Nighttime Construction, http://ops.fhwa.dot.gov/wz/workshops/accessible/schexnayder_paper.htm.
- _____. 2006. Roadway Construction Noise Model.
- Federal Transit Administration (FTA). 2018. Transit Noise and Vibration Impact Assessment.
- Google. 2023. Google Earth.
- Harris Miller Miller & Hanson Inc. (HMMH). 2006. Transit Noise and Vibration Impact Assessment, Final Report.
- Imperial Irrigation District (IID). 2023. Renewable Energy, <https://www.iid.com/energy/renewable-energy>. Accessed June 28, 2023.
- Intergovernmental Panel on Climate Change. 2014. Climate Change 2014 Synthesis Report: Approved Summary for Policymakers, <http://www.ipcc.ch/>.
- Ludwig Engineering. 2007. Sun City Shadow Hills Expansion Specific Plan, <https://www.indio.org/home/showpublisheddocument/3287/638036967428070000>. Accessed April 20, 2023.
- Ludwig Engineering, Richardson Verdoorn, HSA Design Group, and Barg Meeks Group. 2004. Sun City Shadow Hills Project Master Plan, <https://www.indio.org/home/showpublisheddocument/3285/638036966858700000>. Accessed April 20, 2023.
- Mainiero, Smith and Associates, Inc. 2004. The Villages at Andreas Ranch Conceptual Specific Plan and Project Master Plan Amendment No. 1,

- <https://www.indio.org/home/showpublisheddocument/3289/638036969320770000>. Accessed April 21, 2023.
- National Oceanic and Atmospheric Administration (NOAA). 2023. About the National Coastal Zone Management Program, <https://coast.noaa.gov/czm/about/>. Accessed April 7, 2023.
- National Park Service (NPS). 2023. Archaeological and Historic Preservation Act of 1974, <https://www.nps.gov/subjects/archeology/archeological-and-historic-preservation-act.htm>. Accessed April 7, 2023.
- _____. 1983. Archaeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines. 48 FR (Federal Register) 44716-68.
- National Resource Conservation Service (NRCS). 2023a. Natural Resources Conservation Science Web Soil Survey, <https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx>. Accessed February 23, 2023.
- _____. 2023b. Farmland Protection Policy Act, <https://www.nrcs.usda.gov/conservation-basics/natural-resource-concerns/land/cropland/farmland-protection-policy-act>. Accessed April 7, 2023.
- National Wild and Scenic Rivers System (NWSRS). 2023. Palm Canyon Creek, California, <https://www.rivers.gov/rivers/palm-canyon.php>. Accessed April 12, 2023.
- Riverside County. 2023a. Map My County, https://gis1.countyofriverside.us/html5viewer/index.html?viewer=mmc_public&msckid=042e04ccac8711ecad6813ab1df620f6. Accessed June 30, 2023.
- _____. 2023b. Department of Environmental Health – Hazardous Materials (HazMat), <https://www.rivcoeh.org/OurServices/HazardousMaterials>. Accessed February 24, 2023.
- _____. 2019. Emergency Operations Plan (EOP) Riverside County Operational Area (OA), <https://orange-arrl.org/wp-content/uploads/2020/11/RivCo-Emergency-Operations-Plan.pdf>. Accessed March 10, 2023.
- Riverside County Airport Land Use Commission. 2004. Riverside County Airport Land Use Compatibility Plan, Volume I, <https://www.rcaluc.org/Plans/New-Compatibility-Plan>. Accessed February 24, 2023.
- South Coast Air Quality Management District (SCAQMD). 2008. Final Localized Significance Threshold Methodology (dated June 2003 [revised 2008]).
- _____. 2003. 2003 Air Quality Management Plan.
- _____. 1992. 1992 Federal Attainment Plan for Carbon Monoxide.
- State Water Resources Control Board (SWRCB). 2023. Geotracker Database, <https://geotracker.waterboards.ca.gov/>. Accessed February 24, 2023.

- _____. 2017. Appendix I: State Environmental Review Process, https://www.waterboards.ca.gov/water_issues/programs/grants_loans/srf/docs/policy0513/appendix_i_envguide.pdf. Accessed April 7, 2023.
- SunLine Transit Agency. 2023. System Map, <https://sunline.org/sites/default/files/Final-System-Map-Jan-2023-WEB.pdf>. Accessed February 16, 2023.
- United States Army Corps of Engineers (USACE). 2023a. Compliance with the Federal Endangered Species Act, <https://www.spk.usace.army.mil/Missions/Regulatory/Permitting/Endangered-Species-Agency-Consultations/#:~:text=Section%20%20of%20the%20Endangered%20Species%20Act&text=Under%20the%20ESA%2C%20species%20may,significant%20portion%20of%20its%20range>. Accessed April 7, 2023.
- _____. 2023b. Section 10 of the Rivers and Harbors Act, <https://www.spk.usace.army.mil/Missions/Regulatory/Jurisdiction/Rivers-Harbors-Act/>. Accessed April 12, 2023.
- U.S. Census Bureau. 2023. QuickFacts – Indio city, California, <https://www.census.gov/quickfacts/fact/table/indiocitycalifornia/POP815221>. Accessed February 16, 2023.
- U.S. Department of Energy. 2021. Office of Energy Efficiency and Renewable Energy. Energy Tips - Wastewater Treatment Plants. <https://betterbuildingssolutioncenter.energy.gov/sites/default/files/attachments/Tipsheet%205%20-%20UV%20Disinfection%20-%20Final.pdf>
- U.S. Environmental Protection Agency (USEPA). 2023a. What is General Conformity?, <https://www.epa.gov/general-conformity/what-general-conformity>. Accessed April 7, 2023.
- _____. 2023b. Protection of Wetlands (Executive Order 11990), <https://www.epa.gov/cwa-404/protection-wetlands-executive-order-11990>. Accessed April 12, 2023.
- _____. 2023c. Summary of the Safe Drinking Water Act, <https://www.epa.gov/laws-regulations/summary-safe-drinking-water-act>. Accessed April 12, 2023.
- _____. 2023d. Sole Source Aquifers, <https://epa.maps.arcgis.com/apps/webappviewer/index.html?id=9ebb047ba3ec41ada1877155fe31356b>. Accessed April 12, 2023.
- _____. 2022. Summary of Executive Order 12898 - Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, <https://www.epa.gov/laws-regulations/summary-executive-order-12898-federal-actions-address-environmental-justice>. Accessed April 7, 2023.
- U.S. Fish and Wildlife Service (USFWS). 2023a. IPaC Information Planning and Consultation. Accessed from: <https://ipac.ecosphere.fws.gov/>. Accessed July 2023.

- _____. 2023b. National Wetlands Inventory, <https://www.fws.gov/wetlands/data/Mapper.html>.
- _____. 2023c. Coastal Barrier Resources Act, <https://www.fws.gov/program/coastal-barrier-resources-act>. Accessed April 7, 2023.
- _____. 2008. Federal Fish and Wildlife Permit (MSHCP Permit). <https://cvmshcp.org/pdf-files/CVMSHCP-USFWS-permit-w-conditions-and-tables-10-1-08.pdf>.
- _____. 1918. Migratory Bird Treaty Act of 1918. Section 16 of the U.S. Code (703-712), as amended 1989.
- United States Geological Survey (USGS). 2023. National Hydrography Dataset, https://www.arcgis.com/home/webmap/viewer.html?url=http://hydro.nationalmap.gov/arcgis/rest/services/NHDPlus_HR/MapServer&source=sd.
- Water Systems Consulting, Inc. (WSC). 2021. 2020 Coachella Valley Regional Urban Water Management Plan, <http://www.cvwd.org/DocumentCenter/View/5482/Coachella-Valley-RUWMP>. Accessed March 17, 2023.

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Coachella Valley Water District - WRP 7 Upgrade
Construction Start Date	2/1/2024
Operational Year	2025
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.00
Precipitation (days)	7.60
Location	80609 Avenue 38, Indio, CA 92203, USA
County	Riverside-Salton Sea
City	Indio
Air District	South Coast AQMD
Air Basin	Salton Sea
TAZ	5657
EDFZ	19
Electric Utility	Imperial Irrigation District
Gas Utility	Southern California Gas
App Version	2022.1.1.16

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
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User Defined Linear	0.47	Mile	1.00	0.00	0.00	—	—	—
General Light Industry	14.0	1000sqft	0.32	14,000	0.00	—	—	—
Other Non-Asphalt Surfaces	8.00	1000sqft	0.18	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-10-A	Water Exposed Surfaces
Construction	C-10-C	Water Unpaved Construction Roads
Construction	C-12	Sweep Paved Roads

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.26	15.9	19.8	0.03	0.74	0.28	0.91	0.68	0.07	0.71	—	3,297	3,297	0.13	0.04	1.31	3,315
Mit.	3.26	15.9	19.8	0.03	0.74	0.28	0.91	0.68	0.07	0.71	—	3,297	3,297	0.13	0.04	1.31	3,315
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.23	15.5	19.0	0.03	0.64	0.28	0.91	0.59	0.07	0.65	—	3,253	3,253	0.13	0.04	0.03	3,269
Mit.	3.23	15.5	19.0	0.03	0.64	0.28	0.91	0.59	0.07	0.65	—	3,253	3,253	0.13	0.04	0.03	3,269

% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.11	6.22	7.57	0.01	0.27	0.10	0.37	0.25	0.02	0.27	—	1,259	1,259	0.05	0.02	0.21	1,265
Mit.	1.11	6.22	7.57	0.01	0.27	0.10	0.37	0.25	0.02	0.27	—	1,259	1,259	0.05	0.02	0.21	1,265
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.20	1.14	1.38	< 0.005	0.05	0.02	0.07	0.05	< 0.005	0.05	—	208	208	0.01	< 0.005	0.03	209
Mit.	0.20	1.14	1.38	< 0.005	0.05	0.02	0.07	0.05	< 0.005	0.05	—	208	208	0.01	< 0.005	0.03	209
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	3.26	15.9	19.8	0.03	0.74	0.28	0.91	0.68	0.07	0.71	—	3,297	3,297	0.13	0.04	1.31	3,315
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	3.23	15.5	19.0	0.03	0.64	0.28	0.91	0.59	0.07	0.65	—	3,253	3,253	0.13	0.04	0.03	3,269
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	1.11	6.22	7.57	0.01	0.27	0.10	0.37	0.25	0.02	0.27	—	1,259	1,259	0.05	0.02	0.21	1,265
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

2024	0.20	1.14	1.38	< 0.005	0.05	0.02	0.07	0.05	< 0.005	0.05	—	208	208	0.01	< 0.005	0.03	209
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2.3. Construction Emissions by Year, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	3.26	15.9	19.8	0.03	0.74	0.28	0.91	0.68	0.07	0.71	—	3,297	3,297	0.13	0.04	1.31	3,315
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	3.23	15.5	19.0	0.03	0.64	0.28	0.91	0.59	0.07	0.65	—	3,253	3,253	0.13	0.04	0.03	3,269
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	1.11	6.22	7.57	0.01	0.27	0.10	0.37	0.25	0.02	0.27	—	1,259	1,259	0.05	0.02	0.21	1,265
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.20	1.14	1.38	< 0.005	0.05	0.02	0.07	0.05	< 0.005	0.05	—	208	208	0.01	< 0.005	0.03	209

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.73	0.41	3.48	0.01	0.01	0.50	0.52	0.01	0.13	0.14	15.6	16,332	16,348	2.73	0.18	5.79	16,475
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.57	0.42	1.99	0.01	0.01	0.50	0.52	0.01	0.13	0.14	15.6	16,258	16,273	2.73	0.18	3.70	16,399

Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.61	0.39	2.35	0.01	0.01	0.46	0.47	0.01	0.12	0.13	15.6	16,233	16,248	2.73	0.18	4.49	16,374
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.11	0.07	0.43	< 0.005	< 0.005	0.08	0.09	< 0.005	0.02	0.02	2.58	2,687	2,690	0.45	0.03	0.74	2,711

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.29	0.28	2.77	0.01	< 0.005	0.50	0.51	< 0.005	0.13	0.13	—	640	640	0.02	0.03	2.15	652
Area	0.44	0.01	0.61	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.50	2.50	< 0.005	< 0.005	—	2.51
Energy	0.01	0.12	0.10	< 0.005	0.01	—	0.01	0.01	—	0.01	—	15,670	15,670	1.14	0.14	—	15,739
Water	—	—	—	—	—	—	—	—	—	—	6.20	19.2	25.4	0.64	0.02	—	45.9
Waste	—	—	—	—	—	—	—	—	—	—	9.36	0.00	9.36	0.94	0.00	—	32.7
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.64	3.64
Total	0.73	0.41	3.48	0.01	0.01	0.50	0.52	0.01	0.13	0.14	15.6	16,332	16,348	2.73	0.18	5.79	16,475
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.23	0.30	1.88	0.01	< 0.005	0.50	0.51	< 0.005	0.13	0.13	—	569	569	0.03	0.03	0.06	578
Area	0.34	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.01	0.12	0.10	< 0.005	0.01	—	0.01	0.01	—	0.01	—	15,670	15,670	1.14	0.14	—	15,739
Water	—	—	—	—	—	—	—	—	—	—	6.20	19.2	25.4	0.64	0.02	—	45.9
Waste	—	—	—	—	—	—	—	—	—	—	9.36	0.00	9.36	0.94	0.00	—	32.7
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.64	3.64

Total	0.57	0.42	1.99	0.01	0.01	0.50	0.52	0.01	0.13	0.14	15.6	16,258	16,273	2.73	0.18	3.70	16,399
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.22	0.26	1.95	0.01	< 0.005	0.46	0.46	< 0.005	0.12	0.12	—	542	542	0.02	0.03	0.84	551
Area	0.39	< 0.005	0.30	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.23	1.23	< 0.005	< 0.005	—	1.24
Energy	0.01	0.12	0.10	< 0.005	0.01	—	0.01	0.01	—	0.01	—	15,670	15,670	1.14	0.14	—	15,739
Water	—	—	—	—	—	—	—	—	—	—	6.20	19.2	25.4	0.64	0.02	—	45.9
Waste	—	—	—	—	—	—	—	—	—	—	9.36	0.00	9.36	0.94	0.00	—	32.7
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.64	3.64
Total	0.61	0.39	2.35	0.01	0.01	0.46	0.47	0.01	0.12	0.13	15.6	16,233	16,248	2.73	0.18	4.49	16,374
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.04	0.05	0.36	< 0.005	< 0.005	0.08	0.08	< 0.005	0.02	0.02	—	89.8	89.8	< 0.005	< 0.005	0.14	91.3
Area	0.07	< 0.005	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.20	0.20	< 0.005	< 0.005	—	0.21
Energy	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2,594	2,594	0.19	0.02	—	2,606
Water	—	—	—	—	—	—	—	—	—	—	1.03	3.18	4.20	0.11	< 0.005	—	7.60
Waste	—	—	—	—	—	—	—	—	—	—	1.55	0.00	1.55	0.15	0.00	—	5.42
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.60	0.60
Total	0.11	0.07	0.43	< 0.005	< 0.005	0.08	0.09	< 0.005	0.02	0.02	2.58	2,687	2,690	0.45	0.03	0.74	2,711

2.6. Operations Emissions by Sector, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.29	0.28	2.77	0.01	< 0.005	0.50	0.51	< 0.005	0.13	0.13	—	640	640	0.02	0.03	2.15	652
Area	0.44	0.01	0.61	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.50	2.50	< 0.005	< 0.005	—	2.51
Energy	0.01	0.12	0.10	< 0.005	0.01	—	0.01	0.01	—	0.01	—	15,670	15,670	1.14	0.14	—	15,739

Water	—	—	—	—	—	—	—	—	—	—	6.20	19.2	25.4	0.64	0.02	—	45.9
Waste	—	—	—	—	—	—	—	—	—	—	9.36	0.00	9.36	0.94	0.00	—	32.7
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.64	3.64
Total	0.73	0.41	3.48	0.01	0.01	0.50	0.52	0.01	0.13	0.14	15.6	16,332	16,348	2.73	0.18	5.79	16,475
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.23	0.30	1.88	0.01	< 0.005	0.50	0.51	< 0.005	0.13	0.13	—	569	569	0.03	0.03	0.06	578
Area	0.34	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.01	0.12	0.10	< 0.005	0.01	—	0.01	0.01	—	0.01	—	15,670	15,670	1.14	0.14	—	15,739
Water	—	—	—	—	—	—	—	—	—	—	6.20	19.2	25.4	0.64	0.02	—	45.9
Waste	—	—	—	—	—	—	—	—	—	—	9.36	0.00	9.36	0.94	0.00	—	32.7
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.64	3.64
Total	0.57	0.42	1.99	0.01	0.01	0.50	0.52	0.01	0.13	0.14	15.6	16,258	16,273	2.73	0.18	3.70	16,399
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.22	0.26	1.95	0.01	< 0.005	0.46	0.46	< 0.005	0.12	0.12	—	542	542	0.02	0.03	0.84	551
Area	0.39	< 0.005	0.30	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.23	1.23	< 0.005	< 0.005	—	1.24
Energy	0.01	0.12	0.10	< 0.005	0.01	—	0.01	0.01	—	0.01	—	15,670	15,670	1.14	0.14	—	15,739
Water	—	—	—	—	—	—	—	—	—	—	6.20	19.2	25.4	0.64	0.02	—	45.9
Waste	—	—	—	—	—	—	—	—	—	—	9.36	0.00	9.36	0.94	0.00	—	32.7
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.64	3.64
Total	0.61	0.39	2.35	0.01	0.01	0.46	0.47	0.01	0.12	0.13	15.6	16,233	16,248	2.73	0.18	4.49	16,374
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.04	0.05	0.36	< 0.005	< 0.005	0.08	0.08	< 0.005	0.02	0.02	—	89.8	89.8	< 0.005	< 0.005	0.14	91.3
Area	0.07	< 0.005	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.20	0.20	< 0.005	< 0.005	—	0.21
Energy	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2,594	2,594	0.19	0.02	—	2,606
Water	—	—	—	—	—	—	—	—	—	—	1.03	3.18	4.20	0.11	< 0.005	—	7.60
Waste	—	—	—	—	—	—	—	—	—	—	1.55	0.00	1.55	0.15	0.00	—	5.42

Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.60	0.60
Total	0.11	0.07	0.43	< 0.005	< 0.005	0.08	0.09	< 0.005	0.02	0.02	2.58	2,687	2,690	0.45	0.03	0.74	2,711

3. Construction Emissions Details

3.1. Site Preparation (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.43	13.7	12.9	0.02	0.65	—	0.65	0.59	—	0.59	—	2,064	2,064	0.08	0.02	—	2,071
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.34	0.32	< 0.005	0.02	—	0.02	0.01	—	0.01	—	50.9	50.9	< 0.005	< 0.005	—	51.1
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.06	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.42	8.42	< 0.005	< 0.005	—	8.45
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.77	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	114	114	< 0.005	< 0.005	0.42	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.55	2.55	< 0.005	< 0.005	< 0.005	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.42	0.42	< 0.005	< 0.005	< 0.005	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—

3.2. Site Preparation (2024) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.43	13.7	12.9	0.02	0.65	—	0.65	0.59	—	0.59	—	2,064	2,064	0.08	0.02	—	2,071
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.34	0.32	< 0.005	0.02	—	0.02	0.01	—	0.01	—	50.9	50.9	< 0.005	< 0.005	—	51.1
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.06	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.42	8.42	< 0.005	< 0.005	—	8.45
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.77	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	114	114	< 0.005	< 0.005	0.42	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.55	2.55	< 0.005	< 0.005	< 0.005	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.42	0.42	< 0.005	< 0.005	< 0.005	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
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3.3. Grading (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.65	15.9	15.4	0.02	0.74	—	0.74	0.68	—	0.68	—	2,454	2,454	0.10	0.02	—	2,462
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.87	0.84	< 0.005	0.04	—	0.04	0.04	—	0.04	—	134	134	0.01	< 0.005	—	135
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.16	0.15	< 0.005	0.01	—	0.01	0.01	—	0.01	—	22.3	22.3	< 0.005	< 0.005	—	22.3
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	1.03	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	152	152	0.01	< 0.005	0.57	—

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	7.56	7.56	< 0.005	< 0.005	0.01	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.25	1.25	< 0.005	< 0.005	< 0.005	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—

3.4. Grading (2024) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.65	15.9	15.4	0.02	0.74	—	0.74	0.68	—	0.68	—	2,454	2,454	0.10	0.02	—	2,462
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.09	0.87	0.84	< 0.005	0.04	—	0.04	0.04	—	0.04	—	134	134	0.01	< 0.005	—	135
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.16	0.15	< 0.005	0.01	—	0.01	0.01	—	0.01	—	22.3	22.3	< 0.005	< 0.005	—	22.3
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	1.03	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	152	152	0.01	< 0.005	0.57	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	7.56	7.56	< 0.005	< 0.005	0.01	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.25	1.25	< 0.005	< 0.005	< 0.005	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—

3.5. Building Construction (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.13	9.44	10.1	0.02	0.37	—	0.37	0.34	—	0.34	—	1,801	1,801	0.07	0.01	—	1,807
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.13	9.44	10.1	0.02	0.37	—	0.37	0.34	—	0.34	—	1,801	1,801	0.07	0.01	—	1,807
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.31	2.59	2.77	0.01	0.10	—	0.10	0.09	—	0.09	—	493	493	0.02	< 0.005	—	495
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.47	0.51	< 0.005	0.02	—	0.02	0.02	—	0.02	—	81.7	81.7	< 0.005	< 0.005	—	82.0
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.61	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	89.3	89.3	< 0.005	< 0.005	0.33	—

Vendor	< 0.005	0.08	0.04	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	73.8	73.8	< 0.005	0.01	0.20	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.04	0.35	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	75.9	75.9	< 0.005	< 0.005	0.01	—
Vendor	< 0.005	0.09	0.04	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	73.9	73.9	< 0.005	0.01	0.01	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.12	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	22.2	22.2	< 0.005	< 0.005	0.04	—
Vendor	< 0.005	0.02	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	20.2	20.2	< 0.005	< 0.005	0.02	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.68	3.68	< 0.005	< 0.005	0.01	—
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	3.35	3.35	< 0.005	< 0.005	< 0.005	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—

3.6. Building Construction (2024) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.13	9.44	10.1	0.02	0.37	—	0.37	0.34	—	0.34	—	1,801	1,801	0.07	0.01	—	1,807
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.13	9.44	10.1	0.02	0.37	—	0.37	0.34	—	0.34	—	1,801	1,801	0.07	0.01	—	1,807
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.31	2.59	2.77	0.01	0.10	—	0.10	0.09	—	0.09	—	493	493	0.02	< 0.005	—	495
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.47	0.51	< 0.005	0.02	—	0.02	0.02	—	0.02	—	81.7	81.7	< 0.005	< 0.005	—	82.0
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.61	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	89.3	89.3	< 0.005	< 0.005	0.33	—
Vendor	< 0.005	0.08	0.04	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	73.8	73.8	< 0.005	0.01	0.20	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.04	0.35	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	75.9	75.9	< 0.005	< 0.005	0.01	—
Vendor	< 0.005	0.09	0.04	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	73.9	73.9	< 0.005	0.01	0.01	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.01	0.01	0.12	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	22.2	22.2	< 0.005	< 0.005	0.04	—
Vendor	< 0.005	0.02	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	20.2	20.2	< 0.005	< 0.005	0.02	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.68	3.68	< 0.005	< 0.005	0.01	—
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	3.35	3.35	< 0.005	< 0.005	< 0.005	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—

3.7. Paving (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.53	4.90	6.53	0.01	0.23	—	0.23	0.21	—	0.21	—	992	992	0.04	0.01	—	995
Paving	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.53	4.90	6.53	0.01	0.23	—	0.23	0.21	—	0.21	—	992	992	0.04	0.01	—	995
Paving	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.14	1.34	1.79	< 0.005	0.06	—	0.06	0.06	—	0.06	—	272	272	0.01	< 0.005	—	273
Paving	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.24	0.33	< 0.005	0.01	—	0.01	0.01	—	0.01	—	45.0	45.0	< 0.005	< 0.005	—	45.1
Paving	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.07	1.29	0.00	0.00	0.16	0.16	0.00	0.04	0.04	—	190	190	0.01	0.01	0.71	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.08	0.74	0.00	0.00	0.16	0.16	0.00	0.04	0.04	—	161	161	0.01	0.01	0.02	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.25	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	47.3	47.3	< 0.005	< 0.005	0.08	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	7.83	7.83	< 0.005	< 0.005	0.01	—

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—

3.8. Paving (2024) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.53	4.90	6.53	0.01	0.23	—	0.23	0.21	—	0.21	—	992	992	0.04	0.01	—	995
Paving	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.53	4.90	6.53	0.01	0.23	—	0.23	0.21	—	0.21	—	992	992	0.04	0.01	—	995
Paving	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	1.34	1.79	< 0.005	0.06	—	0.06	0.06	—	0.06	—	272	272	0.01	< 0.005	—	273
Paving	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.03	0.24	0.33	< 0.005	0.01	—	0.01	0.01	—	0.01	—	45.0	45.0	< 0.005	< 0.005	—	45.1
Paving	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.07	1.29	0.00	0.00	0.16	0.16	0.00	0.04	0.04	—	190	190	0.01	0.01	0.71	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.08	0.74	0.00	0.00	0.16	0.16	0.00	0.04	0.04	—	161	161	0.01	0.01	0.02	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.25	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	47.3	47.3	< 0.005	< 0.005	0.08	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	7.83	7.83	< 0.005	< 0.005	0.01	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—

3.9. Architectural Coating (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.91	1.15	< 0.005	0.03	—	0.03	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	1.32	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.91	1.15	< 0.005	0.03	—	0.03	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	1.32	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.25	0.31	< 0.005	0.01	—	0.01	0.01	—	0.01	—	36.6	36.6	< 0.005	< 0.005	—	36.7
Architectural Coatings	0.36	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.05	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.06	6.06	< 0.005	< 0.005	—	6.08

Architectu Coatings	0.07	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.12	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	17.9	17.9	< 0.005	< 0.005	0.07	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	0.01	0.07	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	15.2	15.2	< 0.005	< 0.005	< 0.005	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.45	4.45	< 0.005	< 0.005	0.01	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.74	0.74	< 0.005	< 0.005	< 0.005	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—

3.10. Architectural Coating (2024) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
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Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.91	1.15	< 0.005	0.03	—	0.03	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	1.32	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.91	1.15	< 0.005	0.03	—	0.03	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	1.32	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.25	0.31	< 0.005	0.01	—	0.01	0.01	—	0.01	—	36.6	36.6	< 0.005	< 0.005	—	36.7
Architectural Coatings	0.36	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.05	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.06	6.06	< 0.005	< 0.005	—	6.08

Architectural Coatings	0.07	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.12	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	17.9	17.9	< 0.005	< 0.005	0.07	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	0.01	0.07	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	15.2	15.2	< 0.005	< 0.005	< 0.005	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.45	4.45	< 0.005	< 0.005	0.01	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.74	0.74	< 0.005	< 0.005	< 0.005	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—

3.11. Linear, Grubbing & Land Clearing (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.20	1.90	2.69	< 0.005	0.08	—	0.08	0.07	—	0.07	—	396	396	0.02	< 0.005	—	397
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.05	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	10.8	10.8	< 0.005	< 0.005	—	10.9
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.80	1.80	< 0.005	< 0.005	—	1.80
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.03	0.29	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	64.5	64.5	< 0.005	< 0.005	0.01	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.89	1.89	< 0.005	< 0.005	< 0.005	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.31	0.31	< 0.005	< 0.005	< 0.005	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—

3.12. Linear, Grubbing & Land Clearing (2024) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.20	1.90	2.69	< 0.005	0.08	—	0.08	0.07	—	0.07	—	396	396	0.02	< 0.005	—	397
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.05	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	10.8	10.8	< 0.005	< 0.005	—	10.9
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.80	1.80	< 0.005	< 0.005	—	1.80
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.03	0.29	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	64.5	64.5	< 0.005	< 0.005	0.01	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.89	1.89	< 0.005	< 0.005	< 0.005	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.31	0.31	< 0.005	< 0.005	< 0.005	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—

3.13. Linear, Grading & Excavation (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.27	1.92	2.19	< 0.005	0.09	—	0.09	0.08	—	0.08	—	305	305	0.01	< 0.005	—	306
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.16	0.18	< 0.005	0.01	—	0.01	0.01	—	0.01	—	25.1	25.1	< 0.005	< 0.005	—	25.2
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.03	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.16	4.16	< 0.005	< 0.005	—	4.17
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.03	0.29	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	64.5	64.5	< 0.005	< 0.005	0.01	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.67	5.67	< 0.005	< 0.005	0.01	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.94	0.94	< 0.005	< 0.005	< 0.005	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—

3.14. Linear, Grading & Excavation (2024) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.27	1.92	2.19	< 0.005	0.09	—	0.09	0.08	—	0.08	—	305	305	0.01	< 0.005	—	306
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.16	0.18	< 0.005	0.01	—	0.01	0.01	—	0.01	—	25.1	25.1	< 0.005	< 0.005	—	25.2
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.03	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.16	4.16	< 0.005	< 0.005	—	4.17

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.03	0.29	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	64.5	64.5	< 0.005	< 0.005	0.01	—	
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.67	5.67	< 0.005	< 0.005	0.01	—	
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.94	0.94	< 0.005	< 0.005	< 0.005	—	
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	—

3.15. Linear, Drainage, Utilities, & Sub-Grade (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.44	4.22	5.29	0.01	0.21	—	0.21	0.19	—	0.19	—	830	830	0.03	0.01	—	833
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.35	0.43	< 0.005	0.02	—	0.02	0.02	—	0.02	—	68.3	68.3	< 0.005	< 0.005	—	68.5
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.06	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	11.3	11.3	< 0.005	< 0.005	—	11.3
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.03	0.29	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	64.5	64.5	< 0.005	< 0.005	0.01	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.67	5.67	< 0.005	< 0.005	0.01	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.94	0.94	< 0.005	< 0.005	< 0.005	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—

3.16. Linear, Drainage, Utilities, & Sub-Grade (2024) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.44	4.22	5.29	0.01	0.21	—	0.21	0.19	—	0.19	—	830	830	0.03	0.01	—	833
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.35	0.43	< 0.005	0.02	—	0.02	0.02	—	0.02	—	68.3	68.3	< 0.005	< 0.005	—	68.5
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.06	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	11.3	11.3	< 0.005	< 0.005	—	11.3
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.03	0.29	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	64.5	64.5	< 0.005	< 0.005	0.01	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.67	5.67	< 0.005	< 0.005	0.01	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.94	0.94	< 0.005	< 0.005	< 0.005	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—

3.17. Linear, Paving (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.24	2.61	3.50	< 0.005	0.13	—	0.13	0.12	—	0.12	—	537	537	0.02	< 0.005	—	539
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.24	2.61	3.50	< 0.005	0.13	—	0.13	0.12	—	0.12	—	537	537	0.02	< 0.005	—	539
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.21	0.29	< 0.005	0.01	—	0.01	0.01	—	0.01	—	44.2	44.2	< 0.005	< 0.005	—	44.3
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.04	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.31	7.31	< 0.005	< 0.005	—	7.34
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.52	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	75.9	75.9	< 0.005	< 0.005	0.28	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.03	0.29	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	64.5	64.5	< 0.005	< 0.005	0.01	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.67	5.67	< 0.005	< 0.005	0.01	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.94	0.94	< 0.005	< 0.005	< 0.005	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—

3.18. Linear, Paving (2024) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.24	2.61	3.50	< 0.005	0.13	—	0.13	0.12	—	0.12	—	537	537	0.02	< 0.005	—	539
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.24	2.61	3.50	< 0.005	0.13	—	0.13	0.12	—	0.12	—	537	537	0.02	< 0.005	—	539
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.21	0.29	< 0.005	0.01	—	0.01	0.01	—	0.01	—	44.2	44.2	< 0.005	< 0.005	—	44.3

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.04	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	—	7.31	7.31	< 0.005	< 0.005	—	7.34
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	—	0.00	0.00	0.00	0.00	0.00	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.52	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	—	75.9	75.9	< 0.005	< 0.005	0.28	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	—	0.00	0.00	0.00	0.00	0.00	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.03	0.29	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	—	64.5	64.5	< 0.005	< 0.005	0.01	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	—	0.00	0.00	0.00	0.00	0.00	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	—	5.67	5.67	< 0.005	< 0.005	0.01	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	—	0.94	0.94	< 0.005	< 0.005	< 0.005	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	—	0.00	0.00	0.00	0.00	0.00	—

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	0.29	0.28	2.77	0.01	< 0.005	0.50	0.51	< 0.005	0.13	0.13	—	640	640	0.02	0.03	2.15	652
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.29	0.28	2.77	0.01	< 0.005	0.50	0.51	< 0.005	0.13	0.13	—	640	640	0.02	0.03	2.15	652
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	0.23	0.30	1.88	0.01	< 0.005	0.50	0.51	< 0.005	0.13	0.13	—	569	569	0.03	0.03	0.06	578
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.23	0.30	1.88	0.01	< 0.005	0.50	0.51	< 0.005	0.13	0.13	—	569	569	0.03	0.03	0.06	578
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	0.04	0.05	0.36	< 0.005	< 0.005	0.08	0.08	< 0.005	0.02	0.02	—	89.8	89.8	< 0.005	< 0.005	0.14	91.3

Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.04	0.05	0.36	< 0.005	< 0.005	0.08	0.08	< 0.005	0.02	0.02	—	89.8	89.8	< 0.005	< 0.005	0.14	91.3

4.1.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	0.29	0.28	2.77	0.01	< 0.005	0.50	0.51	< 0.005	0.13	0.13	—	640	640	0.02	0.03	2.15	652
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.29	0.28	2.77	0.01	< 0.005	0.50	0.51	< 0.005	0.13	0.13	—	640	640	0.02	0.03	2.15	652
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	0.23	0.30	1.88	0.01	< 0.005	0.50	0.51	< 0.005	0.13	0.13	—	569	569	0.03	0.03	0.06	578
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.23	0.30	1.88	0.01	< 0.005	0.50	0.51	< 0.005	0.13	0.13	—	569	569	0.03	0.03	0.06	578
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	0.04	0.05	0.36	< 0.005	< 0.005	0.08	0.08	< 0.005	0.02	0.02	—	89.8	89.8	< 0.005	< 0.005	0.14	91.3

Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.04	0.05	0.36	< 0.005	< 0.005	0.08	0.08	< 0.005	0.02	0.02	—	89.8	89.8	< 0.005	< 0.005	0.14	91.3

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	5,942	5,942	0.43	0.05	—	5,969
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	9,582	9,582	0.69	0.08	—	9,624
Total	—	—	—	—	—	—	—	—	—	—	—	15,524	15,524	1.12	0.14	—	15,593
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	5,942	5,942	0.43	0.05	—	5,969
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	9,582	9,582	0.69	0.08	—	9,624
Total	—	—	—	—	—	—	—	—	—	—	—	15,524	15,524	1.12	0.14	—	15,593
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

General Light Industry	—	—	—	—	—	—	—	—	—	—	—	984	984	0.07	0.01	—	988
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	1,586	1,586	0.11	0.01	—	1,593
Total	—	—	—	—	—	—	—	—	—	—	—	2,570	2,570	0.19	0.02	—	2,582

4.2.2. Electricity Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	5,942	5,942	0.43	0.05	—	5,969
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	9,582	9,582	0.69	0.08	—	9,624
Total	—	—	—	—	—	—	—	—	—	—	—	15,524	15,524	1.12	0.14	—	15,593
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	5,942	5,942	0.43	0.05	—	5,969
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	9,582	9,582	0.69	0.08	—	9,624
Total	—	—	—	—	—	—	—	—	—	—	—	15,524	15,524	1.12	0.14	—	15,593
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

General Light Industry	—	—	—	—	—	—	—	—	—	—	—	984	984	0.07	0.01	—	988
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	1,586	1,586	0.11	0.01	—	1,593
Total	—	—	—	—	—	—	—	—	—	—	—	2,570	2,570	0.19	0.02	—	2,582

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	0.01	0.12	0.10	< 0.005	0.01	—	0.01	0.01	—	0.01	—	146	146	0.01	< 0.005	—	146
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.01	0.12	0.10	< 0.005	0.01	—	0.01	0.01	—	0.01	—	146	146	0.01	< 0.005	—	146
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	0.01	0.12	0.10	< 0.005	0.01	—	0.01	0.01	—	0.01	—	146	146	0.01	< 0.005	—	146
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.01	0.12	0.10	< 0.005	0.01	—	0.01	0.01	—	0.01	—	146	146	0.01	< 0.005	—	146
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

General Light Industry	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	24.1	24.1	< 0.005	< 0.005	—	24.2
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	24.1	24.1	< 0.005	< 0.005	—	24.2

4.2.4. Natural Gas Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	0.01	0.12	0.10	< 0.005	0.01	—	0.01	0.01	—	0.01	—	146	146	0.01	< 0.005	—	146
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.01	0.12	0.10	< 0.005	0.01	—	0.01	0.01	—	0.01	—	146	146	0.01	< 0.005	—	146
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	0.01	0.12	0.10	< 0.005	0.01	—	0.01	0.01	—	0.01	—	146	146	0.01	< 0.005	—	146
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.01	0.12	0.10	< 0.005	0.01	—	0.01	0.01	—	0.01	—	146	146	0.01	< 0.005	—	146
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

General Light Industry	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	24.1	24.1	< 0.005	< 0.005	—	24.2
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	24.1	24.1	< 0.005	< 0.005	—	24.2

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.10	0.01	0.61	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.50	2.50	< 0.005	< 0.005	—	2.51
Total	0.44	0.01	0.61	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.50	2.50	< 0.005	< 0.005	—	2.51
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architectural	0.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	0.34	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.05	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.01	< 0.005	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.20	0.20	< 0.005	< 0.005	—	0.21
Total	0.07	< 0.005	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.20	0.20	< 0.005	< 0.005	—	0.21

4.3.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.10	0.01	0.61	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.50	2.50	< 0.005	< 0.005	—	2.51
Total	0.44	0.01	0.61	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.50	2.50	< 0.005	< 0.005	—	2.51

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	0.34	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.05	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.01	< 0.005	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.20	0.20	< 0.005	< 0.005	—	0.21
Total	0.07	< 0.005	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.20	0.20	< 0.005	< 0.005	—	0.21

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	6.20	19.2	25.4	0.64	0.02	—	45.9

Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	6.20	19.2	25.4	0.64	0.02	—	45.9
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	6.20	19.2	25.4	0.64	0.02	—	45.9
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	6.20	19.2	25.4	0.64	0.02	—	45.9
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	1.03	3.18	4.20	0.11	< 0.005	—	7.60
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	1.03	3.18	4.20	0.11	< 0.005	—	7.60

4.4.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	6.20	19.2	25.4	0.64	0.02	—	45.9

Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	6.20	19.2	25.4	0.64	0.02	—	45.9
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	6.20	19.2	25.4	0.64	0.02	—	45.9
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	6.20	19.2	25.4	0.64	0.02	—	45.9
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	1.03	3.18	4.20	0.11	< 0.005	—	7.60
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	1.03	3.18	4.20	0.11	< 0.005	—	7.60

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

General Light Industry	—	—	—	—	—	—	—	—	—	—	9.36	0.00	9.36	0.94	0.00	—	32.7
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	9.36	0.00	9.36	0.94	0.00	—	32.7
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	9.36	0.00	9.36	0.94	0.00	—	32.7
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	9.36	0.00	9.36	0.94	0.00	—	32.7
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	1.55	0.00	1.55	0.15	0.00	—	5.42
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	1.55	0.00	1.55	0.15	0.00	—	5.42

4.5.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

General Light Industry	—	—	—	—	—	—	—	—	—	—	9.36	0.00	9.36	0.94	0.00	—	32.7
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	9.36	0.00	9.36	0.94	0.00	—	32.7
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	9.36	0.00	9.36	0.94	0.00	—	32.7
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	9.36	0.00	9.36	0.94	0.00	—	32.7
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	1.55	0.00	1.55	0.15	0.00	—	5.42
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	1.55	0.00	1.55	0.15	0.00	—	5.42

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
----------	-----	-----	----	-----	-------	-------	-------	--------	--------	--------	------	-------	------	-----	-----	---	------

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.64	3.64
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.64	3.64
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.64	3.64
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.64	3.64
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.60	0.60
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.60	0.60

4.6.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.64	3.64
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.64	3.64
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

General Light Industry	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.64	3.64
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.64	3.64
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.60	0.60
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.60	0.60

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.7.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetatio	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
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Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Site Preparation	Site Preparation	4/13/2024	4/25/2024	5.00	9.00	—
Grading	Grading	4/26/2024	5/23/2024	5.00	20.0	—
Building Construction	Building Construction	5/24/2024	10/10/2024	5.00	100	—
Paving	Paving	5/24/2024	10/10/2024	5.00	100	—
Architectural Coating	Architectural Coating	5/24/2024	10/10/2024	5.00	100	—
Linear, Grubbing & Land Clearing	Linear, Grubbing & Land Clearing	1/8/2024	1/19/2024	5.00	10.0	—
Linear, Grading & Excavation	Linear, Grading & Excavation	1/20/2024	3/1/2024	5.00	30.0	—
Linear, Drainage, Utilities, & Sub-Grade	Linear, Drainage, Utilities, & Sub-Grade	1/20/2024	3/1/2024	5.00	30.0	—
Linear, Paving	Linear, Paving	3/2/2024	4/12/2024	5.00	30.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Graders	Diesel	Average	1.00	8.00	148	0.41
Site Preparation	Rubber Tired Dozers	Diesel	Average	1.00	7.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41

Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	7.00	84.0	0.37
Building Construction	Cranes	Diesel	Average	1.00	6.00	367	0.29
Building Construction	Forklifts	Diesel	Average	1.00	6.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	1.00	6.00	84.0	0.37
Building Construction	Welders	Diesel	Average	3.00	8.00	46.0	0.45
Paving	Cement and Mortar Mixers	Diesel	Average	1.00	6.00	10.0	0.56
Paving	Pavers	Diesel	Average	1.00	6.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	1.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	1.00	7.00	36.0	0.38
Paving	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48
Linear, Grubbing & Land Clearing	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Linear, Grubbing & Land Clearing	Tractors/Loaders/Backhoes	Diesel	Average	1.00	7.00	84.0	0.37
Linear, Grading & Excavation	Excavators	Diesel	Average	1.00	7.00	36.0	0.38
Linear, Grading & Excavation	Trenchers	Diesel	Average	1.00	7.00	40.0	0.50
Linear, Drainage, Utilities, & Sub-Grade	Bore/Drill Rigs	Diesel	Average	1.00	7.00	83.0	0.50
Linear, Drainage, Utilities, & Sub-Grade	Graders	Diesel	Average	1.00	7.00	148	0.41
Linear, Paving	Pavers	Diesel	Average	1.00	7.00	81.0	0.42
Linear, Paving	Paving Equipment	Diesel	Average	1.00	7.00	89.0	0.36

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Graders	Diesel	Average	1.00	8.00	148	0.41
Site Preparation	Rubber Tired Dozers	Diesel	Average	1.00	7.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	7.00	84.0	0.37
Building Construction	Cranes	Diesel	Average	1.00	6.00	367	0.29
Building Construction	Forklifts	Diesel	Average	1.00	6.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	1.00	6.00	84.0	0.37
Building Construction	Welders	Diesel	Average	3.00	8.00	46.0	0.45
Paving	Cement and Mortar Mixers	Diesel	Average	1.00	6.00	10.0	0.56
Paving	Pavers	Diesel	Average	1.00	6.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	1.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	1.00	7.00	36.0	0.38
Paving	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48
Linear, Grubbing & Land Clearing	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Linear, Grubbing & Land Clearing	Tractors/Loaders/Backhoes	Diesel	Average	1.00	7.00	84.0	0.37
Linear, Grading & Excavation	Excavators	Diesel	Average	1.00	7.00	36.0	0.38

Linear, Grading & Excavation	Trenchers	Diesel	Average	1.00	7.00	40.0	0.50
Linear, Drainage, Utilities, & Sub-Grade	Bore/Drill Rigs	Diesel	Average	1.00	7.00	83.0	0.50
Linear, Drainage, Utilities, & Sub-Grade	Graders	Diesel	Average	1.00	7.00	148	0.41
Linear, Paving	Pavers	Diesel	Average	1.00	7.00	81.0	0.42
Linear, Paving	Paving Equipment	Diesel	Average	1.00	7.00	89.0	0.36

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Linear, Grubbing & Land Clearing	—	—	—	—
Linear, Grubbing & Land Clearing	Worker	5.00	18.5	LDA,LDT1,LDT2
Linear, Grubbing & Land Clearing	Vendor	0.00	10.2	HHDT,MHDT
Linear, Grubbing & Land Clearing	Hauling	0.00	20.0	HHDT
Linear, Grubbing & Land Clearing	Onsite truck	—	—	HHDT
Linear, Grading & Excavation	—	—	—	—
Linear, Grading & Excavation	Worker	5.00	18.5	LDA,LDT1,LDT2
Linear, Grading & Excavation	Vendor	0.00	10.2	HHDT,MHDT
Linear, Grading & Excavation	Hauling	0.00	20.0	HHDT
Linear, Grading & Excavation	Onsite truck	—	—	HHDT
Linear, Drainage, Utilities, & Sub-Grade	—	—	—	—
Linear, Drainage, Utilities, & Sub-Grade	Worker	5.00	18.5	LDA,LDT1,LDT2
Linear, Drainage, Utilities, & Sub-Grade	Vendor	0.00	10.2	HHDT,MHDT
Linear, Drainage, Utilities, & Sub-Grade	Hauling	0.00	20.0	HHDT
Linear, Drainage, Utilities, & Sub-Grade	Onsite truck	—	—	HHDT

Linear, Paving	—	—	—	—
Linear, Paving	Worker	5.00	18.5	LDA,LDT1,LDT2
Linear, Paving	Vendor	0.00	10.2	HHDT,MHDT
Linear, Paving	Hauling	0.00	20.0	HHDT
Linear, Paving	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	7.50	18.5	LDA,LDT1,LDT2
Site Preparation	Vendor	—	10.2	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	10.0	18.5	LDA,LDT1,LDT2
Grading	Vendor	—	10.2	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	5.88	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	2.29	10.2	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	12.5	18.5	LDA,LDT1,LDT2
Paving	Vendor	—	10.2	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	1.18	18.5	LDA,LDT1,LDT2

Architectural Coating	Vendor	—	10.2	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Linear, Grubbing & Land Clearing	—	—	—	—
Linear, Grubbing & Land Clearing	Worker	5.00	18.5	LDA,LDT1,LDT2
Linear, Grubbing & Land Clearing	Vendor	0.00	10.2	HHDT,MHDT
Linear, Grubbing & Land Clearing	Hauling	0.00	20.0	HHDT
Linear, Grubbing & Land Clearing	Onsite truck	—	—	HHDT
Linear, Grading & Excavation	—	—	—	—
Linear, Grading & Excavation	Worker	5.00	18.5	LDA,LDT1,LDT2
Linear, Grading & Excavation	Vendor	0.00	10.2	HHDT,MHDT
Linear, Grading & Excavation	Hauling	0.00	20.0	HHDT
Linear, Grading & Excavation	Onsite truck	—	—	HHDT
Linear, Drainage, Utilities, & Sub-Grade	—	—	—	—
Linear, Drainage, Utilities, & Sub-Grade	Worker	5.00	18.5	LDA,LDT1,LDT2
Linear, Drainage, Utilities, & Sub-Grade	Vendor	0.00	10.2	HHDT,MHDT
Linear, Drainage, Utilities, & Sub-Grade	Hauling	0.00	20.0	HHDT
Linear, Drainage, Utilities, & Sub-Grade	Onsite truck	—	—	HHDT
Linear, Paving	—	—	—	—
Linear, Paving	Worker	5.00	18.5	LDA,LDT1,LDT2
Linear, Paving	Vendor	0.00	10.2	HHDT,MHDT
Linear, Paving	Hauling	0.00	20.0	HHDT
Linear, Paving	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—

Site Preparation	Worker	7.50	18.5	LDA,LDT1,LDT2
Site Preparation	Vendor	—	10.2	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	10.0	18.5	LDA,LDT1,LDT2
Grading	Vendor	—	10.2	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	5.88	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	2.29	10.2	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	12.5	18.5	LDA,LDT1,LDT2
Paving	Vendor	—	10.2	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	1.18	18.5	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	10.2	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	0.00	0.00	21,000	7,000	480

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Paving	0.00	0.00	0.00	0.00	1.18

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
User Defined Linear	1.00	100%
General Light Industry	0.00	0%
Other Non-Asphalt Surfaces	0.18	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2024	0.00	457	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
General Light Industry	69.4	27.9	70.0	23,207	707	283	712	236,141
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
General Light Industry	69.4	27.9	70.0	23,207	707	283	712	236,141
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.1.2. Mitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	21,000	7,000	480

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.10.4. Landscape Equipment - Mitigated

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
General Light Industry	4,750,835	457	0.0330	0.0040	454,784
Other Non-Asphalt Surfaces	7,660,620	457	0.0330	0.0040	0.00

5.11.2. Mitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
General Light Industry	4,750,835	457	0.0330	0.0040	454,784
Other Non-Asphalt Surfaces	7,660,620	457	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
General Light Industry	3,237,500	0.00
Other Non-Asphalt Surfaces	0.00	0.00

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
General Light Industry	3,237,500	0.00
Other Non-Asphalt Surfaces	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
General Light Industry	17.4	—
Other Non-Asphalt Surfaces	0.00	—

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
General Light Industry	17.4	—
Other Non-Asphalt Surfaces	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
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General Light Industry	Other commercial A/C and heat pumps	R-410A	2,088	0.30	4.00	4.00	18.0
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5.14.2. Mitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
General Light Industry	Other commercial A/C and heat pumps	R-410A	2,088	0.30	4.00	4.00	18.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
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5.15.2. Mitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
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5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor
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5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)
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5.17. User Defined

Equipment Type	Fuel Type
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5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres
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5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres
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5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres
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5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	25.4	annual days of extreme heat
Extreme Precipitation	0.10	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	0.08	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about $\frac{3}{4}$ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	1	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	0	0	0	N/A

Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	1	1	1	2
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	1	1	1	2
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
-----------	---------------------------------

Exposure Indicators	—
AQ-Ozone	93.6
AQ-PM	7.88
AQ-DPM	68.4
Drinking Water	63.1
Lead Risk Housing	20.2
Pesticides	79.7
Toxic Releases	2.46
Traffic	36.7
Effect Indicators	—
CleanUp Sites	0.00
Groundwater	0.00
Haz Waste Facilities/Generators	37.7
Impaired Water Bodies	0.00
Solid Waste	0.00
Sensitive Population	—
Asthma	12.1
Cardio-vascular	20.0
Low Birth Weights	0.85
Socioeconomic Factor Indicators	—
Education	57.2
Housing	33.7
Linguistic	47.1
Poverty	66.9
Unemployment	86.8

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	34.51815732
Employed	8.135506224
Median HI	32.58052098
Education	—
Bachelor's or higher	34.96727833
High school enrollment	100
Preschool enrollment	7.814705505
Transportation	—
Auto Access	74.57975106
Active commuting	1.039394328
Social	—
2-parent households	96.06056718
Voting	86.35955345
Neighborhood	—
Alcohol availability	97.0101373
Park access	2.194276915
Retail density	8.764275632
Supermarket access	9.072244322
Tree canopy	0.808417811
Housing	—
Homeownership	76.35057103
Housing habitability	52.82946234
Low-inc homeowner severe housing cost burden	4.221737457
Low-inc renter severe housing cost burden	83.76748364
Uncrowded housing	39.26600796

Health Outcomes	—
Insured adults	6.685486975
Arthritis	0.5
Asthma ER Admissions	86.8
High Blood Pressure	0.6
Cancer (excluding skin)	0.9
Asthma	23.6
Coronary Heart Disease	0.5
Chronic Obstructive Pulmonary Disease	0.5
Diagnosed Diabetes	1.6
Life Expectancy at Birth	88.4
Cognitively Disabled	97.6
Physically Disabled	22.7
Heart Attack ER Admissions	79.0
Mental Health Not Good	46.4
Chronic Kidney Disease	0.9
Obesity	21.1
Pedestrian Injuries	19.6
Physical Health Not Good	10.9
Stroke	1.2
Health Risk Behaviors	—
Binge Drinking	98.5
Current Smoker	50.3
No Leisure Time for Physical Activity	21.0
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0

Children	92.2
Elderly	1.2
English Speaking	51.1
Foreign-born	51.4
Outdoor Workers	18.8
Climate Change Adaptive Capacity	—
Impervious Surface Cover	79.7
Traffic Density	59.6
Traffic Access	23.0
Other Indices	—
Hardship	79.0
Other Decision Support	—
2016 Voting	98.1

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	25.0
Healthy Places Index Score for Project Location (b)	27.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Construction: Construction Phases	Linear Construction representing linear NPW pipeline
Construction: Off-Road Equipment	equipment added for linear construction
Operations: Energy Use	Electricity adjusted to account for the waste water treatment energy usage including UV disinfection system
Construction: Dust From Material Movement	no information on material movement



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Query Criteria: Quad (La Quinta (3311663) OR West Berdoo Canyon (3311672) OR Keys View (3311682) OR Myoma (3311673) OR East Deception Canyon (3311683) OR Indio (3311662) OR Seven Palms Valley (3311684) OR Rancho Mirage (3311664) OR Cathedral City (3311674)) AND County (Riverside)

Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
<i>Abronia villosa</i> var. <i>aurita</i> chaparral sand-verbena	G5T2? S2	None None	Rare Plant Rank - 1B.1 BLM_S-Sensitive SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden USFS_S-Sensitive	25 1,100	98 S:8	0	1	0	1	0	6	4	4	8	0	0
<i>Aquila chrysaetos</i> golden eagle	G5 S3	None None	BLM_S-Sensitive CDF_S-Sensitive CDFW_FP-Fully Protected CDFW_WL-Watch List IUCN_LC-Least Concern	2,860 2,860	325 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Astragalus bernardinus</i> San Bernardino milk-vetch	G3 S3	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden USFS_S-Sensitive	4,320 5,535	42 S:7	0	0	0	0	0	7	1	6	7	0	0
<i>Astragalus hornii</i> var. <i>hornii</i> Horn's milk-vetch	GUT1 S1	None None	Rare Plant Rank - 1B.1 BLM_S-Sensitive		28 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Astragalus lentiginosus</i> var. <i>cochellae</i> Coachella Valley milk-vetch	G5T1 S1	Endangered None	Rare Plant Rank - 1B.2 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden SB_USDA-US Dept of Agriculture	130 1,400	69 S:47	0	3	11	5	1	27	14	33	46	0	1
<i>Astragalus preussii</i> var. <i>laxiflorus</i> Lancaster milk-vetch	G4T2 S1	None None	Rare Plant Rank - 1B.1		5 S:1	0	0	0	0	1	0	1	0	0	1	0
<i>Astragalus sabulonum</i> gravel milk-vetch	G4G5 S2	None None	Rare Plant Rank - 2B.2		19 S:1	0	0	0	0	0	1	1	0	1	0	0



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Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
<i>Astragalus tricarinatus</i> triple-ribbed milk-vetch	G2 S2	Endangered None	Rare Plant Rank - 1B.2 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	647 5,200	53 S:12	0	3	2	2	0	5	1	11	12	0	0
<i>Athene cunicularia</i> burrowing owl	G4 S3	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFWS_BCC-Birds of Conservation Concern	-120 1,560	2011 S:31	4	12	2	0	1	12	2	29	30	0	1
<i>Ayenia compacta</i> California ayenia	G4 S3	None None	Rare Plant Rank - 2B.3 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	1,600 1,600	74 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Bombus crotchii</i> Crotch bumble bee	G2 S2	None Candidate Endangered	IUCN_EN-Endangered	1,000 1,000	437 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Buteo regalis</i> ferruginous hawk	G4 S3S4	None None	CDFW_WL-Watch List IUCN_LC-Least Concern	40 40	107 S:1	0	0	0	0	0	1	0	1	1	0	0
<i>Calochortus palmeri var. munzii</i> San Jacinto mariposa-lily	G3T3 S3	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden USFS_S-Sensitive		48 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Chaetodipus fallax pallidus</i> pallid San Diego pocket mouse	G5T3T4 S3S4	None None	CDFW_SSC-Species of Special Concern	475 4,900	79 S:8	0	1	0	0	0	7	8	0	8	0	0
<i>Crotalus ruber</i> red-diamond rattlesnake	G4 S3	None None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFS_S-Sensitive	920 2,000	192 S:3	0	0	0	0	0	3	3	0	3	0	0
<i>Cyprinodon macularius</i> desert pupfish	G1 S1	Endangered Endangered	AFS_EN-Endangered IUCN_VU-Vulnerable	385 440	74 S:2	0	2	0	0	0	0	2	0	2	0	0
<i>Desert Fan Palm Oasis Woodland</i> Desert Fan Palm Oasis Woodland	G3 S3.2	None None		200 2,800	80 S:25	0	2	0	0	1	22	25	0	24	0	1



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						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
<i>Dinacoma caseyi</i> Casey's June beetle	G1 S1	Endangered None		120 362	9 S:4	0	0	0	1	1	2	1	3	3	0	1
<i>Dipodomys merriami collinus</i> Earthquake Merriam's kangaroo rat	G5T2? S2	None None		110 140	23 S:2	0	2	0	0	0	0	0	2	2	0	0
<i>Ditaxis claryana</i> glandular ditaxis	G3G4 S2	None None	Rare Plant Rank - 2B.2	60 570	26 S:5	0	0	1	0	1	3	4	1	4	1	0
<i>Ditaxis serrata var. californica</i> California ditaxis	G5T3T4 S2?	None None	Rare Plant Rank - 3.2	200 1,000	24 S:4	0	0	0	0	0	4	4	0	4	0	0
<i>Empidonax traillii extimus</i> southwestern willow flycatcher	G5T2 S3	Endangered Endangered		600 1,000	70 S:2	0	0	0	0	0	2	2	0	2	0	0
<i>Eremothera boothii ssp. boothii</i> Booth's evening-primrose	G5T4 S3	None None	Rare Plant Rank - 2B.3	1,200 1,200	35 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Erigeron parishii</i> Parish's daisy	G2 S2	Threatened None	Rare Plant Rank - 1B.1 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	4,610 4,610	52 S:1	0	0	0	0	0	1	0	1	1	0	0
<i>Eumops perotis californicus</i> western mastiff bat	G4G5T4 S3S4	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern		296 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Euparagia unidentata</i> Algodones euparagia	G1G2 S1S2	None None		40 40	3 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Euphorbia abramsiana</i> Abrams' spurge	G4 S2	None None	Rare Plant Rank - 2B.2 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	200 3,000	109 S:2	0	0	0	0	0	2	2	0	2	0	0
<i>Euphorbia arizonica</i> Arizona spurge	G5 S3	None None	Rare Plant Rank - 2B.3	500 1,400	11 S:2	0	0	0	0	0	2	2	0	2	0	0
<i>Euphorbia platysperma</i> flat-seeded spurge	G3 S1	None None	Rare Plant Rank - 1B.2 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	210 210	3 S:1	0	0	0	0	0	1	1	0	1	0	0



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						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
<i>Falco mexicanus</i> prairie falcon	G5 S4	None None	CDFW_WL-Watch List IUCN_LC-Least Concern	800 1,173	451 S:7	0	0	0	0	0	7	7	0	7	0	0
<i>Gopherus agassizii</i> desert tortoise	G3 S2S3	Threatened Threatened	IUCN_CR-Critically Endangered	810 1,960	985 S:4	0	2	0	1	0	1	2	2	4	0	0
<i>Lanius ludovicianus</i> loggerhead shrike	G4 S4	None None	CDFW_SSC-Species of Special Concern IUCN_NT-Near Threatened	133 133	110 S:1	0	0	1	0	0	0	0	1	1	0	0
<i>Lasiurus xanthinus</i> western yellow bat	G4G5 S3	None None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern	-120 1,700	58 S:7	0	0	0	0	0	7	7	0	7	0	0
<i>Linanthus maculatus ssp. maculatus</i> Little San Bernardino Mtns. linanthus	G2T2 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	640 1,300	53 S:2	0	0	0	0	0	2	2	0	2	0	0
<i>Macrobaenetes valgum</i> Coachella giant sand treader cricket	G1G2 S2	None None	IUCN_VU-Vulnerable	40 350	5 S:4	0	0	0	0	0	4	4	0	4	0	0
<i>Marina orcuttii var. orcuttii</i> California marina	G2G3T1T2 S2?	None None	Rare Plant Rank - 1B.3 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden USFS_S-Sensitive	1,200 1,200	3 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Matelea parvifolia</i> spear-leaf matelea	G5 S3	None None	Rare Plant Rank - 2B.3 USFS_S-Sensitive	2,700 2,700	68 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Monardella robisonii</i> Robison's monardella	G3 S3	None None	Rare Plant Rank - 1B.3 BLM_S-Sensitive SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	4,300 5,300	37 S:3	0	0	1	0	0	2	3	0	3	0	0
<i>Nemacaulis denudata var. gracilis</i> slender cottonheads	G3G4T3? S2	None None	Rare Plant Rank - 2B.2	100 100	24 S:3	0	0	0	0	2	1	3	0	1	1	1
<i>Neotoma albigula venusta</i> Colorado Valley woodrat	G5T3T4 S1S2	None None		3,500 3,500	22 S:1	0	0	0	0	0	1	1	0	1	0	0



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						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
<i>Neotoma lepida intermedia</i> San Diego desert woodrat	G5T3T4 S3S4	None None	CDFW_SSC-Species of Special Concern	320 1,730	132 S:17	0	0	1	0	0	16	17	0	17	0	0
<i>Nyctinomops femorosaccus</i> pocketed free-tailed bat	G5 S3	None None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern	400 400	90 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Oliarces clara</i> cheeseweed owlfly (cheeseweed moth lacewing)	G1G3 S2	None None		560 800	11 S:2	0	0	0	0	0	2	2	0	2	0	0
<i>Ovis canadensis nelsoni</i> desert bighorn sheep	G4T4 S3	None None	BLM_S-Sensitive CDFW_FP-Fully Protected USFS_S-Sensitive		46 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Ovis canadensis nelsoni pop. 2</i> Peninsular bighorn sheep DPS	G4T3Q S2	Endangered Threatened	CDFW_FP-Fully Protected	3,400 3,400	7 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Perognathus longimembris bangsi</i> Palm Springs pocket mouse	G5T2 S1	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern	75 980	30 S:5	0	1	4	0	0	0	4	1	5	0	0
<i>Petalonyx linearis</i> narrow-leaf sandpaper-plant	G4 S3?	None None	Rare Plant Rank - 2B.3	1,000 2,260	26 S:6	0	0	0	0	0	6	4	2	6	0	0
<i>Phrynosoma blainvillii</i> coast horned lizard	G4 S4	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern	4,700 4,700	784 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Phrynosoma mcallii</i> flat-tailed horned lizard	G3 S3	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_NT-Near Threatened	-10 1,616	340 S:16	1	1	1	0	3	10	14	2	13	3	0
<i>Polioptila californica californica</i> coastal California gnatcatcher	G4G5T3Q S2	Threatened None	CDFW_SSC-Species of Special Concern	440 440	1087 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Polioptila melanura</i> black-tailed gnatcatcher	G5 S3S4	None None	CDFW_WL-Watch List IUCN_LC-Least Concern	-120 3,600	34 S:7	0	2	0	0	0	5	7	0	7	0	0
<i>Pseudorontium cyathiferum</i> Deep Canyon snapdragon	G4G5 S1	None None	Rare Plant Rank - 2B.3	900 900	3 S:1	0	0	0	0	0	1	1	0	1	0	0



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						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
<i>Pyrocephalus rubinus</i> vermilion flycatcher	G5 S2S3	None None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern	120 120	25 S:2	0	0	0	0	0	2	2	0	2	0	0
<i>Saltugilia latimeri</i> Latimer's woodland-gilia	G3 S3	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden SB_USDA-US Dept of Agriculture USFS_S-Sensitive	4,580 5,535	60 S:3	0	0	0	0	0	3	0	3	3	0	0
<i>Selaginella eremophila</i> desert spike-moss	G4 S2S3	None None	Rare Plant Rank - 2B.2	1,400 2,818	75 S:4	0	0	0	0	0	4	2	2	4	0	0
<i>Senna covesii</i> Cove's cassia	G5 S3	None None	Rare Plant Rank - 2B.2 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	3,100 3,100	55 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Stemodia durantifolia</i> purple stemodia	G5 S2	None None	Rare Plant Rank - 2B.1 SB_CRES-San Diego Zoo CRES Native Gene Seed Bank	600 1,000	21 S:3	0	0	0	0	0	3	3	0	3	0	0
<i>Stenopelmatus cahuiensis</i> Coachella Valley jerusalem cricket	G1G2 S2	None None	IUCN_VU-Vulnerable	230 400	11 S:2	0	0	0	0	2	0	2	0	0	1	1
<i>Taxidea taxus</i> American badger	G5 S3	None None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern	-10 -10	594 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Toxostoma bendirei</i> Bendire's thrasher	G4 S3	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable USFWS_BCC-Birds of Conservation Concern	4,100 4,100	68 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Toxostoma crissale</i> Crissal thrasher	G5 S3	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern	-120 100	67 S:4	0	0	0	0	0	4	4	0	4	0	0



Summary Table Report
California Department of Fish and Wildlife
California Natural Diversity Database



Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
<i>Toxostoma lecontei</i> Le Conte's thrasher	G4 S3	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFWS_BCC-Birds of Conservation Concern	-10 1,160	238 S:5	0	0	0	0	0	5	5	0	5	0	0
<i>Uma inornata</i> Coachella Valley fringe-toed lizard	G1Q S1	Threatened Endangered	IUCN_EN-Endangered	-110 1,300	162 S:114	1	5	5	5	14	84	111	3	100	10	4
<i>Vireo bellii pusillus</i> least Bell's vireo	G5T2 S3	Endangered Endangered		680 680	505 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Xerospermophilus tereticaudus chlorus</i> Palm Springs round-tailed ground squirrel	G5T2Q S2	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern	35 260	11 S:5	0	0	0	3	0	2	5	0	5	0	0
<i>Xylorhiza cognata</i> Mecca-aster	G2 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	200 600	36 S:6	0	1	1	0	0	4	1	5	6	0	0

Search Results

43 matches found. Click on scientific name for details

Search Criteria: County or Island is one of [RIV], 9-Quad include [3311663:3311672:3311682:3311673:3311683:3311662:3311684:3311664:3311674]

▲ SCIENTIFIC NAME	COMMON NAME	FAMILY	LIFEFORM	BLOOMING PERIOD	FED LIST	STATE LIST	GLOBAL RANK	CA RARE			DATE ADDED	PHOTO
								STATE RANK	PLANT RANK	CA ENDEMIC		
<u><i>Abronia villosa</i></u> <u>var. <i>aurita</i></u>	chaparral sand-verbena	Nyctaginaceae	annual herb	(Jan)Mar-Sep	None	None	G5T2?	S2	1B.1		2001-01-01	 © 2011 Aaron E. Sims
<u><i>Allium</i></u> <u><i>atrorubens</i></u> var. <u><i>cristatum</i></u>	Inyo onion	Alliaceae	perennial bulbiferous herb	Apr-Jun	None	None	G4T4	S4	4.3		2001-01-01	 © 2005 James M. Andre
<u><i>Astragalus</i></u> <u><i>bernardinus</i></u>	San Bernardino milk-vetch	Fabaceae	perennial herb	Apr-Jun	None	None	G3	S3	1B.2	Yes	2011-02-16	No Photo Available
<u><i>Astragalus</i></u> <u><i>hornii</i></u> var. <u><i>hornii</i></u>	Horn's milk-vetch	Fabaceae	annual herb	May-Oct	None	None	GUT1	S1	1B.1		2006-12-01	No Photo Available
<u><i>Astragalus</i></u> <u><i>lentiginosus</i></u> var. <u><i>borreganus</i></u>	Borrego milk-vetch	Fabaceae	annual herb	Feb-May	None	None	G5T5?	S4	4.3		1974-01-01	No Photo Available
<u><i>Astragalus</i></u> <u><i>lentiginosus</i></u> var. <u><i>coachellae</i></u>	Coachella Valley milk-vetch	Fabaceae	annual/perennial herb	Feb-May	FE	None	G5T1	S1	1B.2	Yes	1984-01-01	No Photo Available
<u><i>Astragalus</i></u> <u><i>preussii</i></u> var. <u><i>laxiflorus</i></u>	Lancaster milk-vetch	Fabaceae	perennial herb	Mar-May	None	None	G4T2	S1	1B.1		1988-01-01	No Photo Available
<u><i>Astragalus</i></u> <u><i>sabulonum</i></u>	gravel milk-vetch	Fabaceae	annual/perennial herb	Feb-Jun	None	None	G4G5	S2	2B.2		2011-10-19	No Photo Available
<u><i>Astragalus</i></u> <u><i>tricarinatus</i></u>	triple-ribbed milk-vetch	Fabaceae	perennial herb	Feb-May	FE	None	G2	S2	1B.2	Yes	1974-01-01	No Photo Available
<u><i>Ayenia</i></u> <u><i>compacta</i></u>	California ayenia	Malvaceae	perennial herb	Mar-Apr	None	None	G4	S3	2B.3		1974-01-01	No Photo Available

<u><i>Calochortus palmeri</i></u> var. <u><i>munzii</i></u>	San Jacinto mariposa-lily	Liliaceae	perennial bulbiferous herb	Apr-Jul	None	None	G3T3	S3	1B.2	Yes	1974-01-01	No Photo Available
<u><i>Chorizanthe leptotheca</i></u>	Peninsular spineflower	Polygonaceae	annual herb	May-Aug	None	None	G3	S3	4.2		1994-01-01	No Photo Available
<u><i>Cuscuta californica</i></u> var. <u><i>apiculata</i></u>	pointed dodder	Convolvulaceae	annual vine (parasitic)	Feb-Aug	None	None	G5T3	S3?	3		2007-06-13	No Photo Available
<u><i>Ditaxis claryana</i></u>	glandular ditaxis	Euphorbiaceae	perennial herb	Oct-Mar	None	None	G3G4	S2	2B.2		1974-01-01	No Photo Available
<u><i>Ditaxis serrata</i></u> var. <u><i>californica</i></u>	California ditaxis	Euphorbiaceae	perennial herb	Mar-Dec	None	None	G5T3T4	S2?	3.2	Yes	1974-01-01	No Photo Available
<u><i>Eremothera boothii</i></u> ssp. <u><i>boothii</i></u>	Booth's evening-primrose	Onagraceae	annual herb	Apr-Sep	None	None	G5T4	S3	2B.3		1980-01-01	No Photo Available
<u><i>Erigeron parishii</i></u>	Parish's daisy	Asteraceae	perennial herb	May-Aug	FT	None	G2	S2	1B.1	Yes	1974-01-01	No Photo Available
<u><i>Erythranthe diffusa</i></u>	Palomar monkeyflower	Phrymaceae	annual herb	Apr-Jun	None	None	G4	S3	4.3		1974-01-01	 Ron Vanderhoff, 2019
<u><i>Eschscholzia androuxii</i></u>	Joshua Tree poppy	Papaveraceae	annual herb	Feb-May(Jun)	None	None	G3	S3	4.3		2014-12-17	No Photo Available
<u><i>Euphorbia abramsiana</i></u>	Abrams' spurge	Euphorbiaceae	annual herb	(Aug)Sep-Nov	None	None	G4	S2	2B.2		2001-01-01	No Photo Available
<u><i>Euphorbia arizonica</i></u>	Arizona spurge	Euphorbiaceae	perennial herb	Mar-Apr	None	None	G5	S3	2B.3		1980-01-01	No Photo Available
<u><i>Euphorbia platysperma</i></u>	flat-seeded spurge	Euphorbiaceae	annual herb	Feb-Sep	None	None	G3	S1	1B.2		1980-01-01	No Photo Available
<u><i>Galium angustifolium</i></u> ssp. <u><i>gracillimum</i></u>	slender bedstraw	Rubiaceae	perennial herb	Apr-Jun(Jul)	None	None	G5T4	S4	4.2	Yes	1994-01-01	 © 2011 Duncan S. Bell
<u><i>Horsfordia alata</i></u>	pink velvet-mallow	Malvaceae	perennial shrub	Feb-Dec	None	None	G5	S4	4.3		2001-01-01	No Photo Available
<u><i>Horsfordia newberryi</i></u>	Newberry's velvet-mallow	Malvaceae	perennial shrub	Feb-Dec	None	None	G5	S4	4.3		2001-01-01	No Photo Available

<i>Johnstonella costata</i>	ribbed cryptantha	Boraginaceae	annual herb	Feb-May	None	None	G4G5	S4	4.3		1974-01-01	No Photo Available
<i>Johnstonella holoptera</i>	winged cryptantha	Boraginaceae	annual herb	Mar-Apr	None	None	G4G5	S4	4.3		1980-01-01	No Photo Available
<i>Juncus acutus</i> ssp. <i>leopoldii</i>	southwestern spiny rush	Juncaceae	perennial rhizomatous herb	(Mar)May-Jun	None	None	G5T5	S4	4.2		1988-01-01	 © 2019 Belinda Lo
<i>Juncus cooperi</i>	Cooper's rush	Juncaceae	perennial herb	Apr-May(Aug)	None	None	G4	S3	4.3		1974-01-01	 © 2018 Neal Kramer
<i>Linanthus maculatus</i> ssp. <i>maculatus</i>	Little San Bernardino Mtns. linanthus	Polemoniaceae	annual herb	Mar-May	None	None	G2T2	S2	1B.2	Yes	1974-01-01	No Photo Available
<i>Lycium torreyi</i>	Torrey's box-thorn	Solanaceae	perennial shrub	(Jan-Feb)Mar-Jun(Sep-Nov)	None	None	G4G5	S3	4.2		2015-05-05	No Photo Available
<i>Marina orcuttii</i> var. <i>orcuttii</i>	California marina	Fabaceae	perennial herb	May-Oct	None	None	G2G3T1T2	S2?	1B.3		1984-01-01	No Photo Available
<i>Matelea parvifolia</i>	spear-leaf matelea	Apocynaceae	perennial herb	Mar-May(Jul)	None	None	G5	S3	2B.3		1974-01-01	No Photo Available
<i>Monardella robisonii</i>	Robison's monardella	Lamiaceae	perennial rhizomatous herb	(Feb)Apr-Sep(Oct)	None	None	G3	S3	1B.3	Yes	1974-01-01	No Photo Available
<i>Nemacaulis denudata</i> var. <i>gracilis</i>	slender cottonheads	Polygonaceae	annual herb	(Mar)Apr-May	None	None	G3G4T3?	S2	2B.2		1994-01-01	No Photo Available
<i>Petalonyx linearis</i>	narrow-leaf sandpaper-plant	Loasaceae	perennial shrub	(Jan-Feb)Mar-May(Jun-Dec)	None	None	G4	S3?	2B.3		2016-09-16	No Photo Available
<i>Pseudorontium cyathiferum</i>	Deep Canyon snapdragon	Plantaginaceae	annual herb	Feb-Apr	None	None	G4G5	S1	2B.3		1980-01-01	No Photo Available
<i>Saltugilia latimeri</i>	Latimer's woodland-gilia	Polemoniaceae	annual herb	Mar-Jun	None	None	G3	S3	1B.2	Yes	2004-01-01	No Photo Available
<i>Selaginella eremophila</i>	desert spike-moss	Selaginellaceae	perennial rhizomatous herb	(May)Jun(Jul)	None	None	G4	S2S3	2B.2		1994-01-01	No Photo Available

<u><i>Senna covesii</i></u>	Cove's cassia	Fabaceae	perennial herb	Mar- Jun(Aug)	None	None	G5	S3	2B.2		1980- 01-01	No Photo Available		
<u><i>Stemodia durantifolia</i></u>	purple stemodia	Plantaginaceae	perennial herb	(Jan)Apr-Dec	None	None	G5	S2	2B.1		2001- 01-01	No Photo Available		
<u><i>Xylorhiza cognata</i></u>	Mecca-aster	Asteraceae	perennial herb	Jan-Jun	None	None	G2	S2	1B.2	Yes	1980- 01-01	No Photo Available		
<u><i>Yucca brevifolia</i></u>								CC	GNR		SNR	CBR	2011- 12-13	No Photo Available

Showing 1 to 43 of 43 entries

Suggested Citation:

California Native Plant Society, Rare Plant Program. 2023. Rare Plant Inventory (online edition, v9.5). Website <https://www.rareplants.cnps.org> [accessed 4 May 2023].

Proposed Project
Construction-Related
Gasoline Usage

Construction

Table 1. Construction in First Calendar Year			
Action	Carbon Dioxide Equivalents (CO ₂ e) in Metric Tons ¹	Conversion of Metric Tons to Kilograms ²	Construction Equipment Emission Factor ²
Project Construction	209	209,000	10.15
Total Gallons Consumed During First Calendar Year of Construction:			20,591

Sources:

¹ECORP Consulting. 2023. CVWD WRP 7 ISMND Air Quality subsection.

²Climate Registry. 2016. *General Reporting Protocol for the Voluntary Reporting Program version 2.1*. January 2016.
<http://www.theclimateregistry.org/wp-content/uploads/2014/11/General-Reporting-Protocol-Version-2.1.pdf>

Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 5/31/2023
Case Description: Linear, Grubbing and Land Clearing

Description **Land Use**
 Linear, Grubbing and Land Clearing Residential

Description	Impact Device	Usage(%)	Equipment		Receptor Distance (feet)
			Spec Lmax (dBA)	Actual Lmax (dBA)	
Excavator	No	40		80.7	52
Tractor	No	40	84		52

Calculated (dBA)

Equipment	*Lmax	Leq
Excavator	80.4	76.4
Tractor	83.7	79.7
Total	83.7	81.3

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 5/31/2023

Case Description: Linear, Grading, Excavation, and Pipeline Installation

Description **Land Use**
 Linear, Grading,
 Excavation, and
 Pipeline Installation Residential

Description	Impact Device	Usage(%)	Equipment		Receptor Distance (feet)
			Spec Lmax (dBA)	Actual Lmax (dBA)	
Excavator	No	40		80.7	52
Slurry Trenching Machine	No	50		80.4	52
Grader	No	40	85		52
Drill Rig Truck	No	20		79.1	52

Calculated (dBA)

Equipment	*Lmax	Leq
Excavator	80.4	76.4
Slurry Trenching Machine	80	77
Grader	84.7	80.7
Drill Rig Truck	78.8	71.8
Total	84.7	83.5

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 5/31/2023
Case Description: Linear, Paving

Description **Land Use**
 Linear, Paving Residential

Description	Impact Device	Usage(%)	Equipment		Receptor Distance (feet)
			Spec Lmax (dBA)	Actual Lmax (dBA)	
Paver	No	50		77.2	52
Pavement Scarafier	No	20		89.5	52

Calculated (dBA)

Equipment	*Lmax	Leq
Paver	76.9	73.9
Pavement Scarafier	89.2	82.2
Total	89.2	82.8

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 8/7/2023
Case Description: WRP - Site Preparation

Description **Land Use**
 WRP - Site Preparation Residential

Description	Impact Device	Usage(%)	Equipment		Receptor Distance (feet)
			Spec Lmax (dBA)	Actual Lmax (dBA)	
Grader	No	40	85		127
Dozer	No	40		81.7	127
Tractor	No	40	84		127

Calculated (dBA)

Equipment	*Lmax	Leq
Grader	76.9	72.9
Dozer	73.6	69.6
Tractor	75.9	71.9
Total	76.9	76.5

*Calculated Lmax is the Loudest value.

Report date: 8/7/2023
Case Description: Site Preparation

Description
 WRP - Grading

Land Use
 Residential

Description	Impact Device	Usage(%)	Equipment		Receptor Distance (feet)
			Spec Lmax (dBA)	Actual Lmax (dBA)	
Grader	No	40	85		127
Dozer	No	40		81.7	127
Tractor	No	40	84		127
Tractor	No	40	84		127

Calculated (dBA)

Equipment	*Lmax	Leq
Grader	76.9	72.9
Dozer	73.6	69.6
Tractor	75.9	71.9
Tractor	75.9	71.9
Total	76.9	77.8

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 8/7/2023
Case Description: Building Construction, Paving, Painting

Description	Land Use	Equipment				
		Impact Device	Usage(%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)
WRP - Building Construction, Paving, Painting	Residential					
Crane		No	16		80.6	127
Gradall		No	40		83.4	127
Generator		No	50		80.6	127
Tractor		No	40	84		127
Welder / Torch		No	40		74	127
Welder / Torch		No	40		74	127
Welder / Torch		No	40		74	127
Concrete Mixer Truck		No	40		78.8	127
Paver		No	50		77.2	127
Pavement Scarafier		No	20		89.5	127
Roller		No	20		80	127
Tractor		No	40	84		127
Compressor (air)		No	40		77.7	127

Calculated (dBA)

Equipment	*Lmax	Leq
Crane	72.5	64.5
Gradall	75.3	71.3
Generator	72.5	69.5
Tractor	75.9	71.9
Welder / Torch	65.9	61.9
Welder / Torch	65.9	61.9
Welder / Torch	65.9	61.9
Concrete Mixer Truck	70.7	66.7
Paver	69.1	66.1
Pavement Scarafier	81.4	74.4
Roller	71.9	64.9
Tractor	75.9	71.9
Compressor (air)	69.6	65.6
Total	81.4	80.2

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 5/31/2023

Case Description: Site Preparation

Description **Land Use**
 MP 113.2 Pump - Residential
 Site Preparation

Description	Impact Device	Usage(%)	Equipment		Receptor Distance (feet)
			Spec Lmax (dBA)	Actual Lmax (dBA)	
Grader	No	40	85		353
Dozer	No	40		81.7	353
Tractor	No	40	84		353

Calculated (dBA)

Equipment	*Lmax	Leq
Grader	68	64
Dozer	64.7	60.7
Tractor	67	63
Total	68	67.6

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 5/31/2023
 Case Description: Grading

Description Land Use
 MP 113.2 Pump - Residential
 Grading

Description	Impact Device	Usage(%)	Equipment		Receptor Distance (feet)
			Spec Lmax (dBA)	Actual Lmax (dBA)	
Grader	No	40	85		353
Dozer	No	40		81.7	353
Tractor	No	40	84		353
Tractor	No	40	84		353

Calculated (dBA)

Equipment	*Lmax	Leq
Grader	68	64
Dozer	64.7	60.7
Tractor	67	63
Tractor	67	63
Total	68	68.9

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 5/31/2023

Case Description: Building Construction, Paving, Painting

Description **Land Use**
 MP 113.2 Pump - Residential
 Building Construction,
 Paving, Painting

Description	Impact Device	Usage(%)	Equipment		Receptor Distance (feet)
			Spec Lmax (dBA)	Actual Lmax (dBA)	
Crane	No	16		80.6	353
Gradall	No	40		83.4	353
Generator	No	50		80.6	353
Tractor	No	40	84		353
Welder / Torch	No	40		74	353
Welder / Torch	No	40		74	353
Welder / Torch	No	40		74	353
Concrete Mixer Truck	No	40		78.8	353
Paver	No	50		77.2	353
Pavement Scarafier	No	20		89.5	353
Roller	No	20		80	353
Tractor	No	40	84		353
Compressor (air)	No	40		77.7	353

Calculated (dBA)

Equipment	*Lmax	Leq
Crane	63.6	55.6
Gradall	66.4	62.4
Generator	63.7	60.6
Tractor	67	63
Welder / Torch	57	53
Welder / Torch	57	53
Welder / Torch	57	53
Concrete Mixer Truck	61.8	57.8
Paver	60.2	57.2
Pavement Scarafier	72.5	65.5
Roller	63	56
Tractor	67	63
Compressor (air)	60.7	56.7
Total	72.5	71.3

*Calculated Lmax is the Loudest value.



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Carlsbad Fish And Wildlife Office
2177 Salk Avenue - Suite 250
Carlsbad, CA 92008-7385
Phone: (760) 431-9440 Fax: (760) 431-5901

In Reply Refer To:

July 18, 2023

Project Code: 2023-0106199

Project Name: Water Reclamation Plant No. 7 (WRP 7) Phase 1 Non-Potable
Water Improvements Project - Project Area

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A biological assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2))

(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a biological assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a biological assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found at the Fish and Wildlife Service's Endangered Species Consultation website at:

<https://www.fws.gov/endangered/what-we-do/faq.html>

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see <https://www.fws.gov/birds/policies-and-regulations.php>.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see <https://www.fws.gov/birds/bird-enthusiasts/threats-to-birds.php>.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit <https://www.fws.gov/birds/policies-and-regulations/executive-orders/e0-13186.php>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Carlsbad Fish And Wildlife Office

2177 Salk Avenue - Suite 250

Carlsbad, CA 92008-7385

(760) 431-9440

PROJECT SUMMARY

Project Code: 2023-0106199
Project Name: Water Reclamation Plant No. 7 (WRP 7) Phase 1 Non-Potable Water Improvements Project

Project Type: Distribution Line - New Construction - Below Ground

Project Description: Project Area

The Water Reclamation Plant (WRP) 7 Tertiary Treatment Improvements and Mile Post (MP) 113.2 Pump Station Rehabilitation project includes the following upgrades:

Retrofit the existing dual media filter basins with cloth disk filters to improve tertiary treatment to match the rated capacity of the plant within the same footprint. Substitute the existing use of Coachella Canal irrigation water with recycled water.

Construct a UV system to match the rated capacity of the plant in accordance with Title 22 regulations, in an enclosed building and with an electrical building to substitute use of chlorine gas.

Abandon the existing chlorine gas system, and maintain the chlorine contact basin for potential future use by operations for effluent/backwash holding.

Upgrade of the existing systems associated with the tertiary process includes the following:

- o Secondary effluent flocculation system
- o Tertiary process chemical feed systems, including sodium hypochlorite storage
- o In-plant secondary effluent, and non-potable water (NPW) delivery pumping systems capacity
- o Tertiary Process electrical motor control centers (MCCs)

CVWD is also replacing the aged infrastructure at canal water delivery pump station MP 113.2 as part of this Project. To maintain the current capacity of the pump station, the two existing pumps and MCC's are being replaced with more efficient pumps and drives requiring less horsepower, and a third pump and wetwell is being added to allow operations to perform routine maintenance while maintaining facility capacity in a typical two-duty and one-standby configuration. All improvements to the pump station are within the existing MP 113.2 site located on the southwest corner of the Madison Street and Avenue 40 intersection.

All proposed WRP 7 and MP 113.2 pump station improvements are within existing Coachella Valley Water District (CVWD) facility sites. The Project proposes to retrofit and improve the WRP 7 tertiary treatment system; with overall treated water effluent capacity from the facility remaining the same.

The Proposed Project would also install approximately 2,500 linear feet of NPW pipeline to connect Young's Farmland to the existing NPW pipeline

on Avenue 38. Young's Farmland currently uses groundwater for irrigation. The Project would convert the primary irrigation source from groundwater to recycled water. The Young's Farmland NPW pipeline would be installed within the right-of-way of Jefferson Street and on Young's Farmland property (APN 691-060-010, 691-050-010, and 691-050-012).

It is anticipated that construction would reach substantial completion in 2025 and that the new systems would be online in late 2025.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@33.77125345,-116.25595111276107,14z>



Counties: Riverside County, California

ENDANGERED SPECIES ACT SPECIES

There is a total of 7 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

BIRDS

NAME	STATUS
Least Bell's Vireo <i>Vireo bellii pusillus</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5945	Endangered
Southwestern Willow Flycatcher <i>Empidonax traillii extimus</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/6749	Endangered

REPTILES

NAME	STATUS
Coachella Valley Fringe-toed Lizard <i>Uma inornata</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2069	Threatened
Desert Tortoise <i>Gopherus agassizii</i> Population: Wherever found, except AZ south and east of Colorado R., and Mexico There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/4481	Threatened

FISHES

NAME	STATUS
Desert Pupfish <i>Cyprinodon macularius</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/7003	Endangered

INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

FLOWERING PLANTS

NAME	STATUS
Coachella Valley Milk-vetch <i>Astragalus lentiginosus var. coachellae</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/7426	Endangered

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

IPAC USER CONTACT INFORMATION

Agency: Private Entity
Name: Chelsie Brown
Address: 215 North Fifth Street
City: Redlands
State: CA
Zip: 92374
Email: cbrown@ecorpconsulting.com
Phone: 9093070046

LEAD AGENCY CONTACT INFORMATION

Lead Agency: California State Water Resources Control Board
Name: Jignesh Ladhawala
Email: JLadhawala@cvwd.org
Phone: 7603982661



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Carlsbad Fish And Wildlife Office
2177 Salk Avenue - Suite 250
Carlsbad, CA 92008-7385
Phone: (760) 431-9440 Fax: (760) 431-5901

In Reply Refer To:

July 18, 2023

Project Code: 2023-0106200

Project Name: Water Reclamation Plant No. 7 (WRP 7) Phase 1 Non-Potable
Water Improvements Project - Pump Station

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A biological assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2))

(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a biological assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a biological assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found at the Fish and Wildlife Service's Endangered Species Consultation website at:

<https://www.fws.gov/endangered/what-we-do/faq.html>

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see <https://www.fws.gov/birds/policies-and-regulations.php>.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see <https://www.fws.gov/birds/bird-enthusiasts/threats-to-birds.php>.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit <https://www.fws.gov/birds/policies-and-regulations/executive-orders/e0-13186.php>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Carlsbad Fish And Wildlife Office

2177 Salk Avenue - Suite 250

Carlsbad, CA 92008-7385

(760) 431-9440

PROJECT SUMMARY

Project Code: 2023-0106200
Project Name: Water Reclamation Plant No. 7 (WRP 7) Phase 1 Non-Potable Water Improvements Project

Project Type: Wastewater Pipeline - New Constr - Below Ground

Project Description: Pump Station

The Water Reclamation Plant (WRP) 7 Tertiary Treatment Improvements and Mile Post (MP) 113.2 Pump Station Rehabilitation project includes the following upgrades:

Retrofit the existing dual media filter basins with cloth disk filters to improve tertiary treatment to match the rated capacity of the plant within the same footprint. Substitute the existing use of Coachella Canal irrigation water with recycled water.

Construct a UV system to match the rated capacity of the plant in accordance with Title 22 regulations, in an enclosed building and with an electrical building to substitute use of chlorine gas.

Abandon the existing chlorine gas system, and maintain the chlorine contact basin for potential future use by operations for effluent/backwash holding.

Upgrade of the existing systems associated with the tertiary process includes the following:

- o Secondary effluent flocculation system
- o Tertiary process chemical feed systems, including sodium hypochlorite storage
- o In-plant secondary effluent, and non-potable water (NPW) delivery pumping systems capacity
- o Tertiary Process electrical motor control centers (MCCs)

CVWD is also replacing the aged infrastructure at canal water delivery pump station MP 113.2 as part of this Project. To maintain the current capacity of the pump station, the two existing pumps and MCC's are being replaced with more efficient pumps and drives requiring less horsepower, and a third pump and wetwell is being added to allow operations to perform routine maintenance while maintaining facility capacity in a typical two-duty and one-standby configuration. All improvements to the pump station are within the existing MP 113.2 site located on the southwest corner of the Madison Street and Avenue 40 intersection.

All proposed WRP 7 and MP 113.2 pump station improvements are within existing Coachella Valley Water District (CVWD) facility sites. The Project proposes to retrofit and improve the WRP 7 tertiary treatment system; with overall treated water effluent capacity from the facility remaining the same.

The Proposed Project would also install approximately 2,500 linear feet of NPW pipeline to connect Young's Farmland to the existing NPW pipeline

on Avenue 38. Young's Farmland currently uses groundwater for irrigation. The Project would convert the primary irrigation source from groundwater to recycled water. The Young's Farmland NPW pipeline would be installed within the right-of-way of Jefferson Street and on Young's Farmland property (APN 691-060-010, 691-050-010, and 691-050-012).

It is anticipated that construction would reach substantial completion in 2025 and that the new systems would be online in late 2025.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@33.75818250000004,-116.25205879916666,14z>



Counties: Riverside County, California

ENDANGERED SPECIES ACT SPECIES

There is a total of 7 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

BIRDS

NAME	STATUS
Least Bell's Vireo <i>Vireo bellii pusillus</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5945	Endangered
Southwestern Willow Flycatcher <i>Empidonax traillii extimus</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/6749	Endangered

REPTILES

NAME	STATUS
Coachella Valley Fringe-toed Lizard <i>Uma inornata</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2069	Threatened
Desert Tortoise <i>Gopherus agassizii</i> Population: Wherever found, except AZ south and east of Colorado R., and Mexico There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/4481	Threatened

FISHES

NAME	STATUS
Desert Pupfish <i>Cyprinodon macularius</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/7003	Endangered

INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

FLOWERING PLANTS

NAME	STATUS
Coachella Valley Milk-vetch <i>Astragalus lentiginosus var. coachellae</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/7426	Endangered

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

IPAC USER CONTACT INFORMATION

Agency: Private Entity
Name: Chelsie Brown
Address: 215 North Fifth Street
City: Redlands
State: CA
Zip: 92374
Email: cbrown@ecorpconsulting.com
Phone: 9093070046



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Carlsbad Fish And Wildlife Office
2177 Salk Avenue - Suite 250
Carlsbad, CA 92008-7385
Phone: (760) 431-9440 Fax: (760) 431-5901

In Reply Refer To:

July 18, 2023

Project Code: 2023-0106201

Project Name: Water Reclamation Plant No. 7 (WRP 7) Phase 1 Non-Potable
Water Improvements Project - Pipeline

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

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(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a biological assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a biological assessment are described at 50 CFR 402.12.

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We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Carlsbad Fish And Wildlife Office

2177 Salk Avenue - Suite 250

Carlsbad, CA 92008-7385

(760) 431-9440

PROJECT SUMMARY

Project Code: 2023-0106201
Project Name: Water Reclamation Plant No. 7 (WRP 7) Phase 1 Non-Potable Water Improvements Project

Project Type: Water Supply Pipeline - New Constr - Below Ground

Project Description: Pipeline

The Water Reclamation Plant (WRP) 7 Tertiary Treatment Improvements and Mile Post (MP) 113.2 Pump Station Rehabilitation project includes the following upgrades:

Retrofit the existing dual media filter basins with cloth disk filters to improve tertiary treatment to match the rated capacity of the plant within the same footprint. Substitute the existing use of Coachella Canal irrigation water with recycled water.

Construct a UV system to match the rated capacity of the plant in accordance with Title 22 regulations, in an enclosed building and with an electrical building to substitute use of chlorine gas.

Abandon the existing chlorine gas system, and maintain the chlorine contact basin for potential future use by operations for effluent/backwash holding.

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- o In-plant secondary effluent, and non-potable water (NPW) delivery pumping systems capacity
- o Tertiary Process electrical motor control centers (MCCs)

CVWD is also replacing the aged infrastructure at canal water delivery pump station MP 113.2 as part of this Project. To maintain the current capacity of the pump station, the two existing pumps and MCC's are being replaced with more efficient pumps and drives requiring less horsepower, and a third pump and wetwell is being added to allow operations to perform routine maintenance while maintaining facility capacity in a typical two-duty and one-standby configuration. All improvements to the pump station are within the existing MP 113.2 site located on the southwest corner of the Madison Street and Avenue 40 intersection.

All proposed WRP 7 and MP 113.2 pump station improvements are within existing Coachella Valley Water District (CVWD) facility sites. The Project proposes to retrofit and improve the WRP 7 tertiary treatment system; with overall treated water effluent capacity from the facility remaining the same.

The Proposed Project would also install approximately 2,500 linear feet of NPW pipeline to connect Young's Farmland to the existing NPW pipeline

on Avenue 38. Young's Farmland currently uses groundwater for irrigation. The Project would convert the primary irrigation source from groundwater to recycled water. The Young's Farmland NPW pipeline would be installed within the right-of-way of Jefferson Street and on Young's Farmland property (APN 691-060-010, 691-050-010, and 691-050-012).

It is anticipated that construction would reach substantial completion in 2025 and that the new systems would be online in late 2025.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@33.771306800000005,-116.26895593848597,14z>



Counties: Riverside County, California

ENDANGERED SPECIES ACT SPECIES

There is a total of 7 threatened, endangered, or candidate species on this species list.

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-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

BIRDS

NAME	STATUS
Least Bell's Vireo <i>Vireo bellii pusillus</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5945	Endangered
Southwestern Willow Flycatcher <i>Empidonax traillii extimus</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/6749	Endangered

REPTILES

NAME	STATUS
Coachella Valley Fringe-toed Lizard <i>Uma inornata</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2069	Threatened
Desert Tortoise <i>Gopherus agassizii</i> Population: Wherever found, except AZ south and east of Colorado R., and Mexico There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/4481	Threatened

FISHES

NAME	STATUS
Desert Pupfish <i>Cyprinodon macularius</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/7003	Endangered

INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

FLOWERING PLANTS

NAME	STATUS
Coachella Valley Milk-vetch <i>Astragalus lentiginosus var. coachellae</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/7426	Endangered

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

IPAC USER CONTACT INFORMATION

Agency: Private Entity
Name: Chelsie Brown
Address: 215 North Fifth Street
City: Redlands
State: CA
Zip: 92374
Email: cbrown@ecorpconsulting.com
Phone: 9093070046

Scientific Name Common Name	Status		Habitat Requirements	Critical Habitat Present within Project Area	Potential for Occurrence
Plants					
<i>Astragalus lentiginosus</i> var. <i>cochellae</i> Coachella Valley milk-vetch	Fed: Ca: CRPR: MSHCP:	END none 1B.2 CV COV	Blooming period: Feb-May; Elevation range: 130-2,150 ft msl; Occurs in desert dunes and sandy areas of Sonoran desert scrub.	No	Presumed Absent. No suitable habitat is present, and the Project is outside of the elevation range for this species.
Wildlife					
Invertebrates					
<i>Danaus plexippus</i> pop. 1 Monarch butterfly overwintering population	Fed: CA: MSHCP:	FC none none	Habitat consists of milkweed and flowering plants. Overwintering occurs in California along the Pacific Ocean in roosting sites consisting of eucalyptus, Monterey pines, and Monterey cypress trees.	No	Presumed Absent. No suitable overwintering habitat is present.
Fishes					
<i>Cyprinodon macularius</i> desert pupfish	Fed: CA: MSHCP:	END END CV COV	Occurs in desert ponds, springs, marshes, and streams in Southern California. Can occur in artificial flowing waters and artificial standing waters.	No	Presumed Absent. No suitable habitat is present.
Reptiles					
<i>Gopherus agassizii</i> desert tortoise	Fed: CA: MSHCP:	THR THR CV COV	Occurs in Joshua tree woodland, Mojavean desert scrub, and Sonoran desert scrub habitats. Most commonly found in desert scrub, desert wash, and Joshua tree habitats. Requires friable soil for burrow and nest construction. Creosote bush habitat with large annual wildflower blooms preferred.	No	Presumed Absent. No suitable habitat is present.
<i>Uma inornata</i> Coachella Valley fringe-toed lizard	Fed: CA: MSHCP:	END THR CV COV	Limited to sandy areas in the Coachella Valley. Occurs in desert dunes and desert wash habitat. Requires fine, loose, windblown sand (for burrowing), interspersed with hardpan and widely spaced desert shrubs.	No	Potential to Occur. Suitable habitat located in the survey buffer immediately north, west, and south of the Project Area with windblown sandy soils and widely spaced desert shrubs. This species is mobile and can travel onto the Project Area.

Scientific Name Common Name	Status	Habitat Requirements	Critical Habitat Present within Project Area	Potential for Occurrence	
Birds					
<i>Empidonax traillii extimus</i> southwestern willow flycatcher (nesting)	Fed: CA: MSHCP:	END END CV COV	Occurs in riparian woodland habitat in Southern California. Nests in densest areas of riparian tree and shrub communities associated with rivers, swamps, and other wetlands, including lakes and reservoirs. Nests are often in nonnative tamarisk (<i>Tamarisk</i> spp.) and native willow (<i>Salix</i> spp.), typically in vegetation stands of 13-23 ft in height.	No	Presumed Absent. No suitable nesting or foraging habitat is present.
<i>Vireo bellii pusillus</i> least Bell's vireo (nesting)	Fed: CA: MSHCP:	END END CV COV	Occurs in riparian forest, riparian scrub, and riparian woodland habitats. Summer resident of Southern California in low riparian vegetation in the vicinity of water or in dry river bottoms, below 2,000 ft msl. Nests placed along margins of bushes or on twigs projecting into pathways, usually willow, mulefat, and mesquite.	No	Presumed Absent. No suitable nesting or foraging habitat is present.
CRPR Ranking		Federal Designations:		State designations:	
1A: Presumed extinct		(Federal Endangered Species Act, U.S. Fish and Wildlife Service)		(California Endangered Species Act, CDFW)	
1B: Rare, threatened, or endangered in California and elsewhere		END: Federally-listed, Endangered		END: State-listed, Endangered	
2B: Rare, threatened, or endangered in California, but more common elsewhere		THR: Federally-listed, Threatened		THR: State-listed, Threatened	
3: Review list of plants requiring more study		FC: Federal Candidate Species		CAN: Candidate for state listing	
4: Plants of limited distribution watch list		DL: Federally-delisted		SSC: Species of Special Concern	
CRPR Threat Code		Other Designations		FP: Fully Protected Species	
0.1: Seriously threatened in California		CV COV: Covered under the Coachella Valley MSHCP			
0.2: Fairly threatened in California					
0.3: Not very threatened in California					
Source: U.S. Fish and Wildlife Service (USFWS) IPaC Information Planning and Consultation					

Coachella Valley Water District

FY2022-2023 WRP 7 Phase I NPW Improvements Project

Project Report, CWSRF Attachment T1

I. Project Area

Coachella Valley Water District (CVWD) is implementing the WRP 7 Phase I Non-Potable Water Improvements Project, which consists of expanding the existing non-potable water (NPW) system in phases to additional customers throughout its service area. CVWD is requesting financing for the fiscal year (FY) 2022-2023 Phase I NPW Improvements Project (Project).

CVWD's non-potable water program is growing as customers join in an effort to conserve water and utilize recycled water for unrestricted irrigation purposes. Currently, irrigation systems within CVWD's water service area use water from one of four sources:

- Domestic potable water from CVWD wells
- Colorado river water via the Coachella Canal that is distributed by CVWD's gravity flow network of baffle stands and pipes to customer owned open-air reservoirs
- Customer owned Replenishment Assessment Charge (RAC) wells that are metered by CVWD
- NPW provided from CVWD's WRP 7 and 10

This project is part of the first of two phases for expanding the capacity of the WRP 7 NPW system. The goal established for this first expansion, to expand the plant to 5.5 MGD from 2.5 MGD, will permit WRP 7's tertiary system to meet the 2030 expected maximum day flow of 5.2 MGD. Planning during this first phase will take into consideration the second WRP 7 expansion to 6.2 MGD to permit the facility to meet the 2040 expected maximum day flow of 6.2 MGD.

WRP 7 is located south of Avenue 38 along Madison Street in Indio, CA. The plant has a secondary design capacity of 5.0 MGD and a tertiary design capacity of 2.5 MGD. Plant influent is initially processed through the headworks facility which consists of bar screens and grit vortex chamber. Following the headworks, flow is treated via activated sludge aeration basins and secondary clarifiers. The liquid stream continues on to secondary clarifiers and then to the Advanced Water Treatment (AWT) pump station. At the AWT, flow up to 2.5 MGD is treated to Title 22 requirements via the existing tertiary system consisting of two flocculation basins, three dual media gravity filters, and a single chlorine contact basin. The continuous coagulation process uses aluminum sulfate, and the disinfection process uses chlorine gas. Flow in excess of 2.5 MGD from the secondary clarifiers is pumped off-site to percolation ponds. Solids handling facilities include thickening and dewatering using a belt filter press and gravity belt thickener with the dewatered solids loaded and transported offsite. The WRP 7 NPW pump station that is used to send blended tertiary effluent and canal water to NPW customers has two 4600 gpm vertical turbine pumps operating under a duty + standby control and supported by a jockey pump. Tertiary effluent is supplemented with canal water from the offsite MP (Mile Post) 113.2 pump station to permit the plant to meet NPW demands in excess of 2.5 MGD. The MP113.2 that feeds canal water from the Coachella canal is located at Avenue 40 and Madison and consists of two 2800 gpm pumps operating under a duty + standby control and supported by a jockey pump.

This Phase 1 NPW Improvements Project also includes the installation of the Young’s Farm NPW conveyance pipeline, consisting of 1,200 linear feet (LF) of 12-inch pipeline and 920-LF of 6-in on-site pipeline.

Based on CVWD’s Sanitation Master Plan, CVWD desires to expand tertiary treatment at WRP 7 to provide Title 22 water to additional irrigation and golf course customers. Growth in the WRP 7 service area is expected to increase plant influent flows to 6.2 MGD by 2040. In response to this growth, CVWD has planned several projects as part of two phases to expand WRP 7 treatment capacity to meet demands and recycle 100% of the WRP 7 influent. Table 1 summarizes the WRP 7 influent flow and total suspended solids projections through 2040.

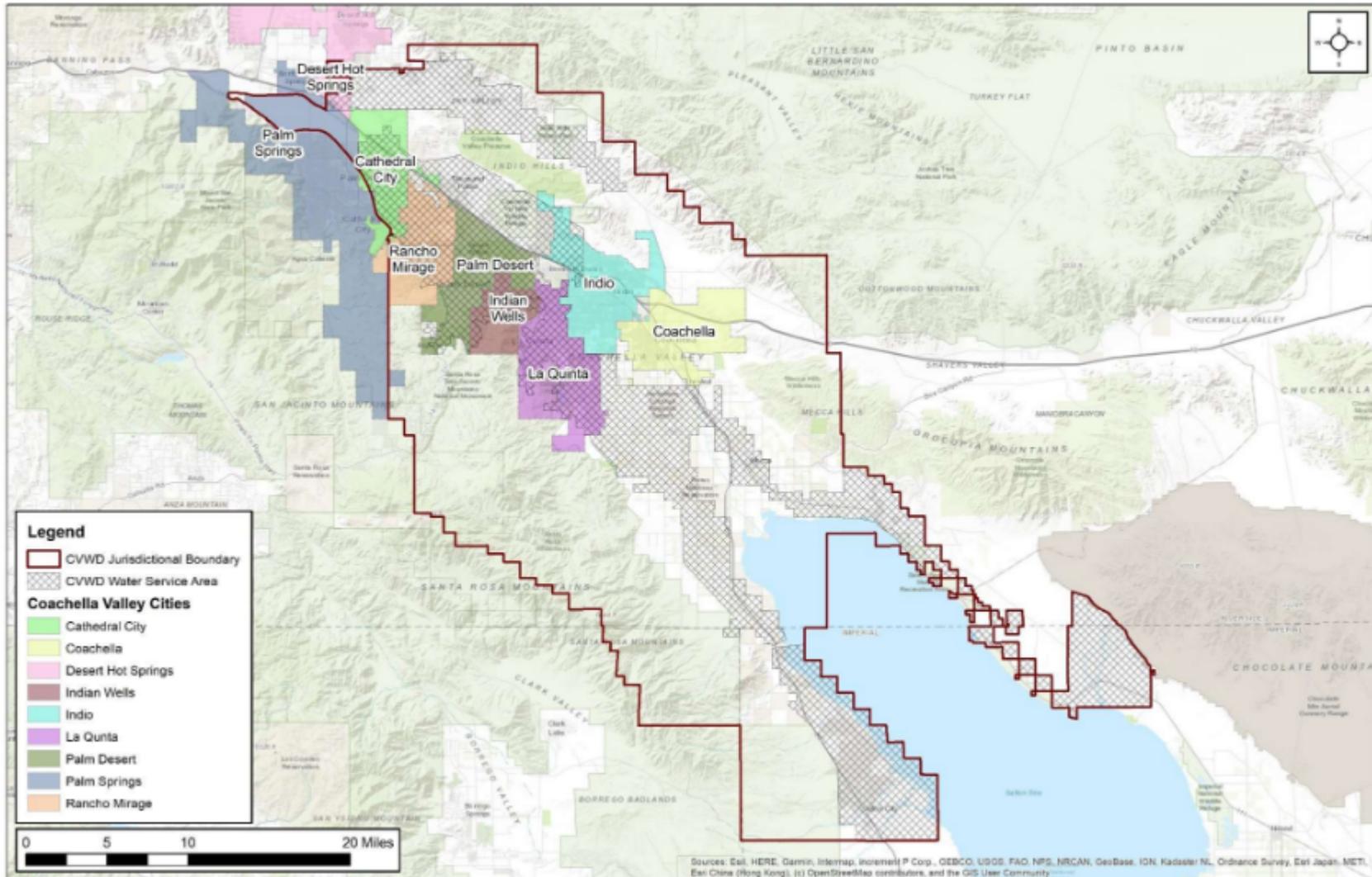
Table 1: WRP 7 Influent Load Projections (CVWD Sanitation Master Plan)

Design Condition	Parameter	Year				
		2020	2025	2030	2035	2040
Minimum Day	Flow (mgd)	2.6	3.0	3.4	3.8	4.0
	TSS (ppd)	2,180	2,520	2,860	3,200	3,460
Average Day	Flow (mgd)	3.2	3.7	4.2	4.7	5.0
	TSS (ppd)	6,880	7,960	9,030	10,110	10,750
Maximum Month Average Day	Flow (mgd)	3.6	4.2	4.8	5.3	5.7
	TSS (ppd)	9,520	11,000	12,490	13,980	14,870
Maximum Day	Flow (mgd)	4.0	4.6	5.2	5.9	6.2
	TSS (ppd)	14,920	17,250	19,580	21,910	23,310

A. Maps

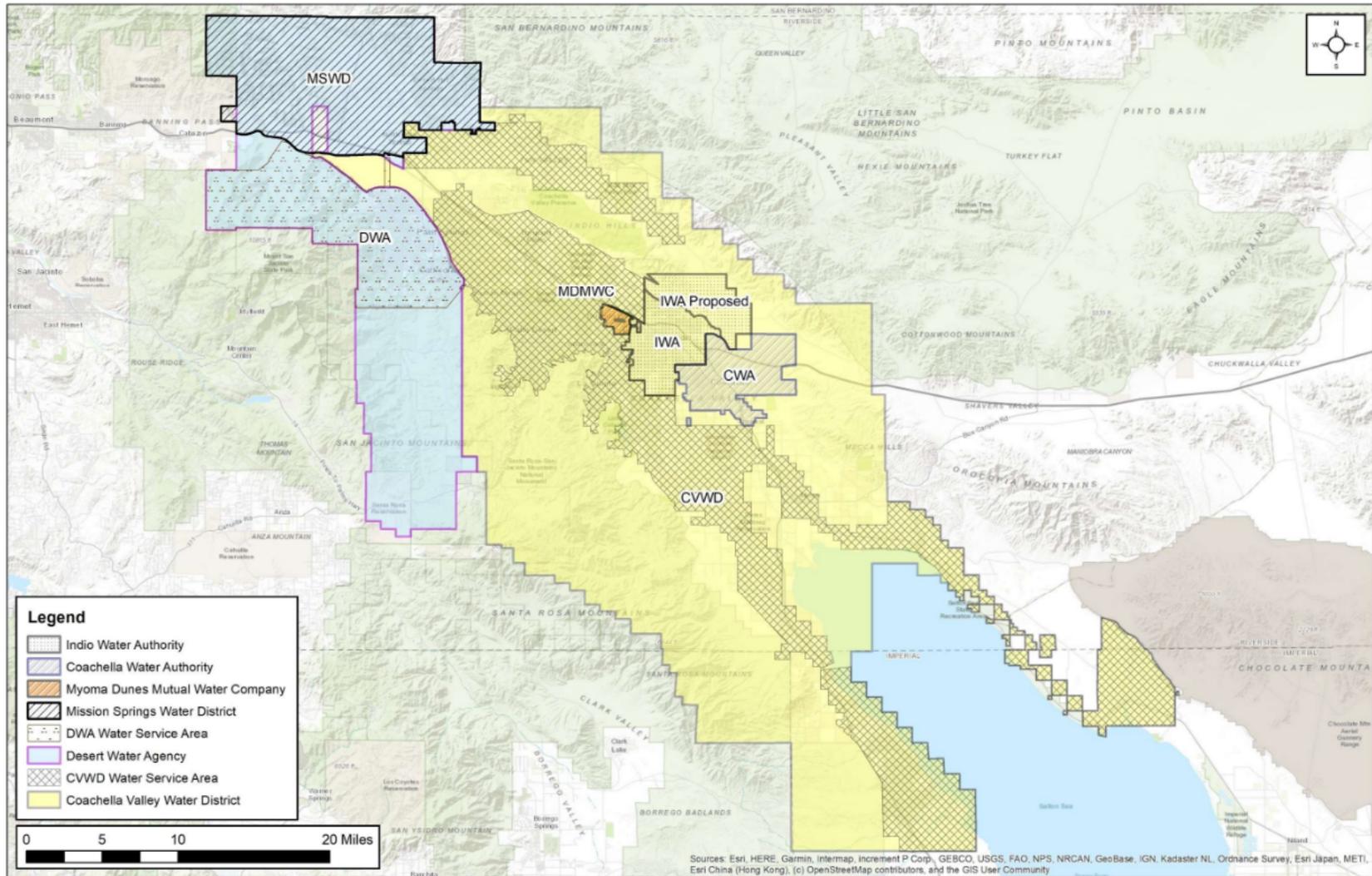
The following figures show the CVWD service area, water agencies participating in the 2020 Regional Urban Water Management Plan (RUWMP), wastewater treatment facilities , groundwater basins, and projected land use in the vicinity.

Figure 1: CVWD Jurisdictional Boundary



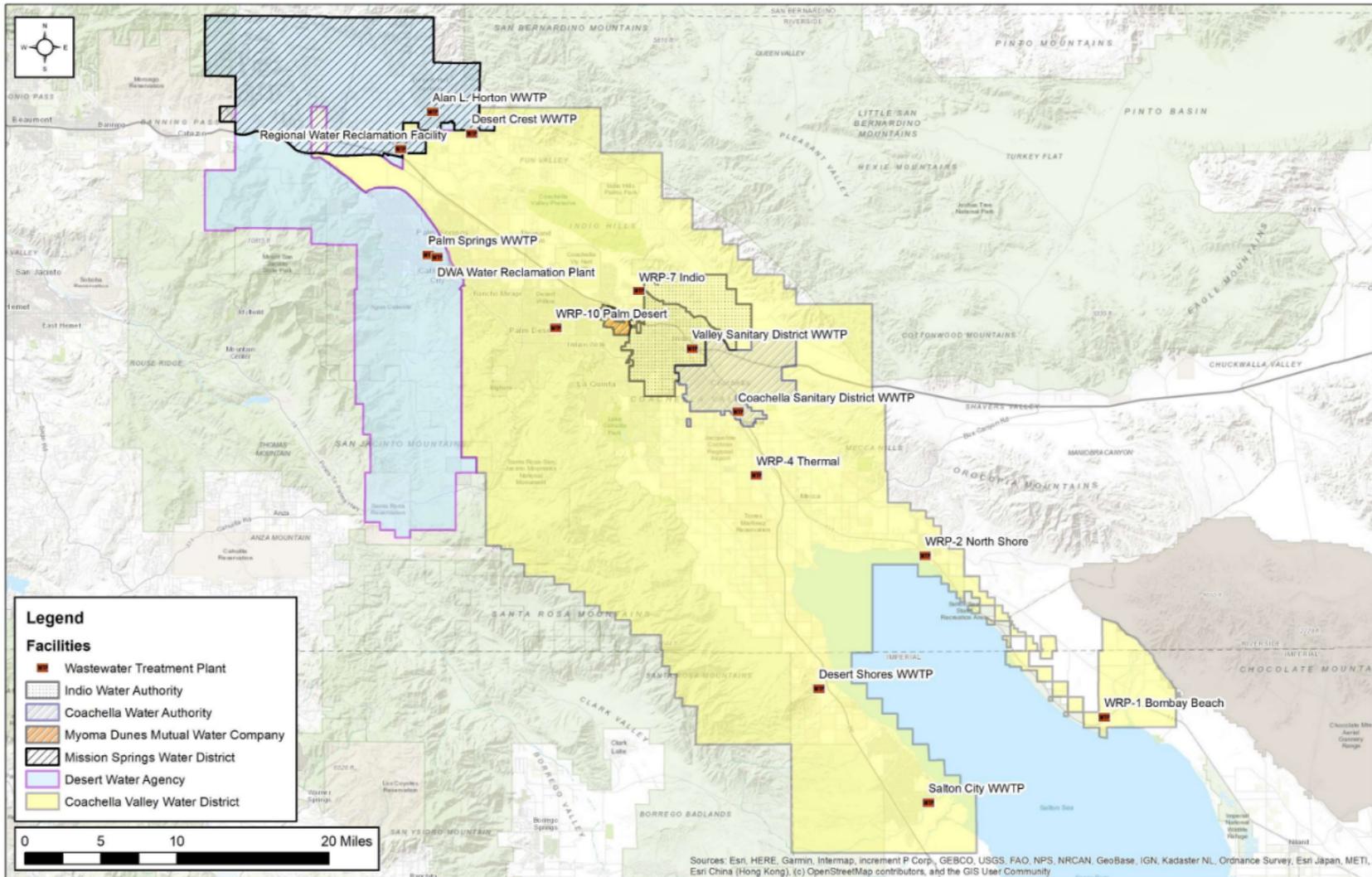
Source: 2020 Urban Water Management Plan Final Report, prepared for CVWD.

Figure 2: Water Agencies Participating in Coachella Valley RUWMP



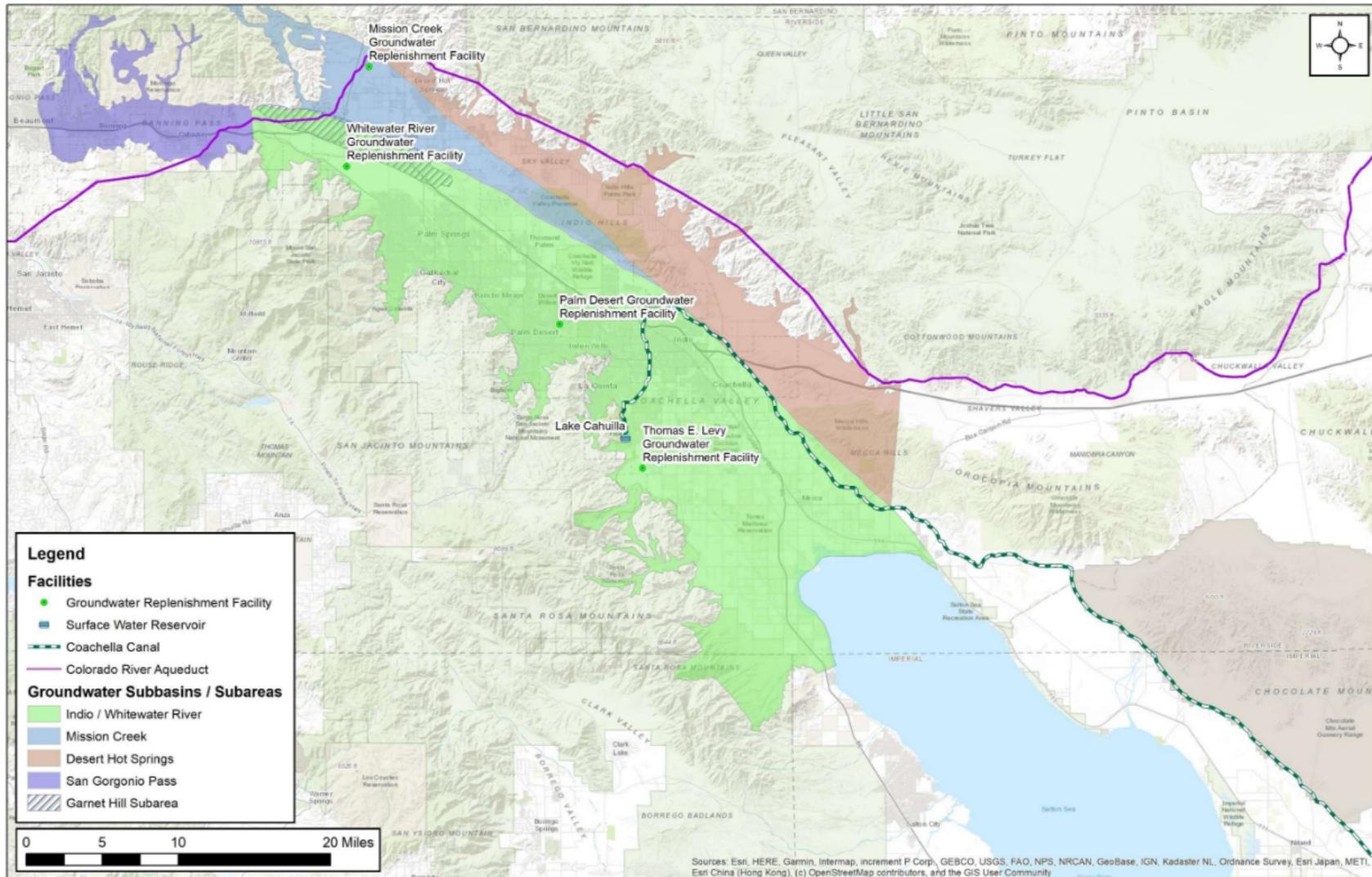
Source: 2020 Urban Water Management Plan Final Report, prepared for CVWD.

Figure 3: Wastewater and Recycled Water Facilities



Source: 2020 Urban Water Management Plan Final Report, prepared for CVWD.

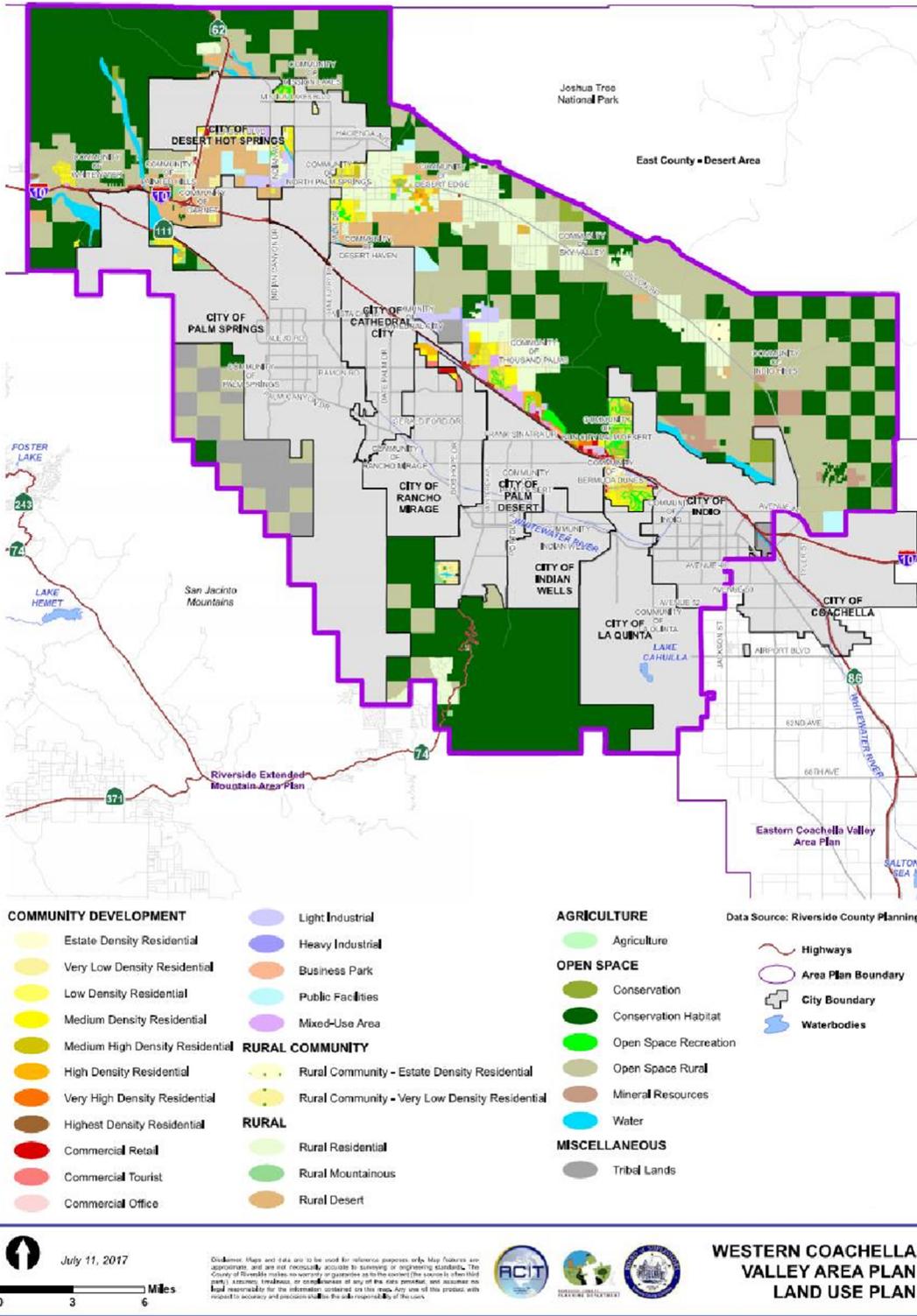
Figure 4: Coachella Valley Groundwater Subbasins and Groundwater Replenishment Facilities



Source: 2020 Urban Water Management Plan Final Report, prepared for CVWD.

Figure 5: Present/Projected Land Use

Source: Western Coachella Valley Area Plan, County of Riverside General Plan (County of Riverside, 2017)



B. Land Use

Coachella Valley is largely a residential and commercial land use with mix of rural, open space and recreation area (Riverside, 2017). See Figure 5 of this PR for present and projected land use in the Coachella Valley.

C. Population Projections

The 2020 RUWMP estimated service area population including seasonal residents within the CVWD service area. Table 2 shows population projections in five-year increments through 2045. Population in the CVWD service area is projected to grow by 114,348, or approximately 43%, in the next 25 years.

Table 2: CVWD Service Area Population Projections

Population Served	2020	2025	2030	2035	2040	2045
	268,952	292,077	315,202	338,274	360,813	383,300

Source: 2020 UWMP, Table 4-4

II. Wastewater Characteristics, Existing Facilities, and Current Water Quality

A. Water Resources

CVWD is not supplied by a wholesale supplier to meet its water demands, but does import water supplies from the Colorado River and is a State Water Project (SWP) contractor. Groundwater is the principal source of municipal water supply in the Coachella Valley. CVWD obtains groundwater from both Whitewater River Subbasin (also known as the Indio Subbasin) and the Mission Creek Subbasin. The Whitewater River Subbasin is a common groundwater source, which is shared by CVWD, Desert Water Agency (DWA), Myoma Dunes Mutual Water Company, the cities of Indio and Coachella, tribes, and numerous private groundwater producers.

In addition to groundwater, CVWD has imported water supplies from the SWP and the Colorado River, and recycled water from several water reclamation plants. There are no physical facilities to deliver SWP water to the Coachella Valley; CVWD's SWP water is exchanged with Metropolitan Water District of Southern California (MWD) for a like amount of Colorado River water. These imported and recycled water supplies are used to meet CVWD's non-urban water demands or to replenish the groundwater basin.

The rates for domestic water service are shown in Figure 6:

Figure 6: Domestic Water Service Rates

Volumetric/Consumptive Tiered Rates		
Tiers	Water use	Rate
Tier 1: Excellent ⁽¹⁾	Up to 8 ccf	\$0.94
Tier 2: Efficient	Up to 100% of water budget	\$1.17
Tier 3: Inefficient	100% up to 175% of water budget	\$3.59
Tier 4: Excessive	175% up to 300% of water budget	\$4.21
Tier 5: Wasteful	300% or more of water budget	\$6.44

⁽¹⁾ Tier 1 is designed to meet indoor water needs of residential customers. Billing for non-residential customers, including commercial businesses and those with dedicated landscape irrigation meters, start with Tier 2.

Fixed Rates						Private Fire Protection	
Meter Size	Single Family	Multi-Family	Commercial	Landscape Irrigation	Outside Customer Surcharge	Lateral Size	Rates
¾" ⁽²⁾	\$12.65	\$12.78	\$12.71	\$16.15	\$3.40	2"	\$2.44
1"	\$15.15	\$15.37	\$15.25	\$20.98	\$5.68	3"	\$6.91
1 ½"	\$21.40	\$21.83	\$21.60	\$33.07	\$11.22	4"	\$14.23
2"	\$28.90	\$29.59	\$29.22	\$47.57	\$18.12	6"	\$40.65
3"	\$46.40	\$47.70	\$47.00	\$81.40	\$33.99	8"	\$86.99
4"	\$71.40	\$73.57	\$72.40	\$129.73	\$56.67	10"	\$156.09
Larger than 4"	Contact CVWD for current fees.					12"	\$252.01

⁽²⁾ The majority of single-family homes use a ¾" meter.

Source: CVWD Domestic Water Rates effective July 1, 2020

The discharge of treated wastewater is within the Coachella Hydrologic Subunit, and the Water Quality Control Plan for the Colorado River Basin Region (Basin Plan) (RWQCB, 2018) designated beneficial uses for groundwater include:

- Municipal supply (MUN),
- Industrial supply (IND), and
- Agricultural supply (AGR).

In 2020, CVWD’s domestic water system provided 99,842 AFY to 268,952 residents. This also represents the highest demand since 2016. For urban water supplies, groundwater is limited by the total production capacity of CVWD’s groundwater wells. The vast storage capacity of the Whitewater River Subbasin (about 28.8 million AF) would be more than adequate to meet the projected groundwater extraction needs of CVWD, DWA and the private pumpers. Without replenishment, the decline in storage would be less than 0.5 percent of the basin storage each year.

Wells approximately 1,200 feet deep reach the highest quality water within the aquifer. The pressurized pipeline distribution system has 30 pressure zones and consists of approximately 96 deep wells, over 2,000 miles of pipe, and 135 million gallons of storage in 61 enclosed reservoirs. The bulk of pipelines installed and acquired by CVWD were installed in the 1970s to present. CVWD, on an as needed basis, performs monitoring and repair of water leaks and breaks. CVWD’s goal is to maintain the system to keep the water loss around its existing level and prevent it from exceeding the threshold level of 10 percent.

In addition to urban water, CVWD operates several separate non-potable water systems that do not serve urban water customers. CVWD’s irrigation system provided approximately 326,000 AFY in 2021 of Colorado River water to over 1,100 customers covering 76,354 acres via the 123-mile, concrete-lined, Coachella Branch of the All American Canal (i.e., the Coachella Canal), as well as for groundwater replenishment. The Coachella Canal water distribution system was constructed to deliver Colorado River water for agricultural uses in the East Valley. The irrigation distribution system consists of 485 miles of buried pipe, 19 pumping plants, and 1,300 acre-feet (AF) of storage. The use of Canal water for potable uses would require treatment to meet drinking water regulations.

In 2009, CVWD completed Phase I of the Mid-Valley Pipeline Project, a \$75 million non-potable pipeline distribution system that expanded its existing recycled water distribution system to serve approximately 50 golf courses that were using groundwater for irrigation purposes. The Mid-Valley Pipeline delivers Coachella Canal water to the expanded recycled water system as a secondary source of supply to be blended with recycled water when demand seasonally exceeds WRP 10 tertiary treatment capacities.

CVWD recognizes the need to obtain additional water supplies to meet projected water demands and help eliminate groundwater overdraft, as indicated in Table 3.

Table 3: Expected Future Water Supply Projects or Programs

Name of Future Projects or Programs	Joint Project with Other Suppliers	Agency Name	Planned Implementation Year	Planned for Use in Year Type	Expected Increase in Water Supply to Supplier (AFY)
Lake Perris Dam Seepage Recovery Project	Yes	MWD	2023	Normal	2,425
Sites Reservoir Project	Yes	Sites Project Authority	2035	Normal	10,000

Source: 2020 UWMP, Table 4-20.

In 2014, the California Legislature enacted the Sustainable Groundwater Management Act (SGMA) to provide a framework for sustainable groundwater management. To implement SGMA in the Indio Subbasin, four local water agencies formed Groundwater Sustainability Agencies (GSAs): CVWD, Coachella Water Authority (CWA), Desert Water Agency (DWA), and Indio Water Authority (IWA). In 2016, the Indio Subbasin GSAs entered into a Memorandum of Understanding for collaborative management of the Indio Subbasin under SGMA.

CVWD has the legal authority to manage the groundwater within its service area under special provisions of the County Water District Law (California Water Code, Division 12, Sections 31630-31639). CVWD has specific authority under Part 6, Chapter 7 to levy and collect water replenishment assessments within defined areas of benefit (AOBs) for the purpose of replenishing groundwater supplies within CVWD. CVWD and DWA first executed the Water Management Agreement in 1976, which was amended in 1992 to jointly manage the West Whitewater River Subbasin Management Area. This agreement formalized the water replenishment program and provided a mechanism for distributing the costs of SWP water between the CVWD and DWA benefit areas based on total production within each agency’s service area. A similar agreement was implemented in 2002 for the Mission Creek subbasin. Both agreements were updated in 2014.

In 1973, CVWD and DWA began replenishing groundwater within the West Whitewater River Subbasin Management Area of the Coachella Valley Groundwater Basin by importing Colorado River water exchanged for SWP water allocations.

Since 1997, CVWD has been replenishing groundwater with Colorado River water in the East Whitewater River Subbasin Area of Benefit, commencing with a pilot program at the Thomas E. Levy Groundwater Replenishment Facility. CVWD also operated the Martinez Canyon pilot project in the East Whitewater River Subbasin from 2005 to 2013. In 2002, CVWD and DWA expanded the groundwater replenishment program into the Mission Creek Subbasin.

Groundwater replenishment is essential in the Coachella Valley Groundwater Basin. If groundwater replenishment with imported water is eliminated, groundwater overdraft will result. Increased overdraft results in declining water levels, increased pump lifts, and increased energy consumption to pump groundwater for irrigation and domestic use, among other issues.

The historical overdraft in the Coachella Valley had caused groundwater levels to decline in many portions of the East Valley from La Quinta to the Salton Sea and raised concerns about water quality degradation and land subsidence. Groundwater levels in the West Valley from Palm Springs to La Quinta had also decreased substantially, except in areas adjacent to and down-gradient of the Whitewater River Recharge Facility, where artificial recharge has successfully raised water levels. The Coachella Valley Groundwater Basin is presently not in overdraft due to active management of the Basin through Coachella Valley Water Management Plan programs like the Groundwater Replenishment Program (GRP) and non-potable supply to golf courses on private groundwater wells. Further expansion of CVWD's NPW program and converting more users from groundwater irrigation to NPW will add to active management of groundwater basins and further mitigate overdraft concerns.

Colorado River water is a source of drinking water for more than 30 million people. It is high quality and requires no treatment before it percolates into the aquifer through a natural filtration process. Groundwater quality in the Coachella Valley varies depending on a variety of factors including depth, proximity to recharge basins and faults, presence of surface water contaminants, and other hydrogeologic or human factors. CVWD conducts water quality monitoring in accordance with federal and state drinking water requirements and analyzes water samples for more than 100 regulated and unregulated substances. CVWD's drinking water supplied from groundwater wells complies with all state and federal drinking water quality standards, as seen in Table 4 below. A summary of domestic well water (groundwater) quality is provided in Table 4.

Table 4: CVWD 2022 Domestic Water Quality Summary

CVWD 2022 Domestic Water Quality Summary (Covering the reporting period January - December 2021)						
DETECTED PARAMETER, UNITS	PHG or (MCLG)	MCL ⁽¹⁾	COVE COMMUNITIES ⁽²⁾ RANGE (AVERAGE)	ID NO. 8 ⁽³⁾ RANGE (AVERAGE)	MCL VIOLATION? (YES/NO)	MAJOR SOURCE(S)
Arsenic, µg/L	0.004	10	ND-8.0 (ND)		No	Erosion of natural deposits
Barium, mg/L	2	1	ND-0.1 (ND)		No	Erosion of natural deposits
Chloride, mg/L	N/A	500;600 ^{1,4}	6.6-250 (23)	11-27 (15)	No	Leaching from natural deposits
Chlorine (as Cl ₂), mg/L ⁽⁵⁾	MRDLG=4	MRDL=4.0	ND-2.7 (0.55)	ND-1.4 (0.83)	No	Result of drinking water chlorination
Chromium, µg/L	(100)	50	ND-24 (ND)	13-23 (17)	No	Erosion of natural deposits
Chromium-6, µg/L ⁽⁷⁾	0.02	N/A	ND-22 (8.5)	14-23 (18)	No	Erosion of natural deposits
Copper, mg/L ⁽⁸⁾ [homes tested/sites exceeding AL]	0.3	AL=1.3	0.11 [55/0]	0.14 [21/0]	No	Internal corrosion of household plumbing
Dibromochloropropane (DBCP), ng/L	3	200	ND-50 (ND)		No	Leaching of banned nematocide which may still be present in soils
Fluoride, mg/L	1	2.0	ND-1.0 (0.6)	0.4-0.6 (0.5)	No	Erosion of natural deposits
Gross Alpha Particle Activity (excluding Uranium), pCi/L	(0)	15	ND-6.8 (ND)	ND-4.6 (ND)	No	Erosion of natural deposits
Haloacetic Acids (HAA5), µg/L ^(6,9)	N/A	60		ND-2.5 (2.5)	No	By-product of drinking water chlorination
Hardness (as CaCO ₃), mg/L		N/A	7.6-320 (120)	72-220 (140)	No	Erosion of natural deposits
Nitrate (as Nitrogen), mg/L	10	10	ND-9.0 (1.4)	0.4-1.4 (0.8)	No	Leaching of fertilizer, animal wastes or natural deposits
Odor as threshold, units	N/A	3 ⁽¹¹⁾	ND-2 (ND)		No	Naturally occurring organic materials
pH, units		N/A	7.5-9.1 (8.1)	7.7-8.1 (8.0)	No	Physical characteristic
Radium 228, pCi/L	0.019	5		ND-1.2 (ND)	No	Erosion of natural deposits
Selenium, µg/L	30	50	ND-5.1 (ND)		No	Erosion of natural deposits
Sodium, mg/L		N/A	18-160 (32)	54-84 (69)	No	Erosion of natural deposits
Specific Conductance, µS/cm	N/A	1,600;2,200 ^{1,4}	240-1,400 (410)	530-870 (640)	No	Substances that form ions when in water
Sulfate, mg/L	N/A	500;600 ^{1,4}	ND-260 (52)	140-250 (180)	No	Leaching from natural deposits
Total Coliform Bacteria, positive samples/month	(0)	5% or 1 ^(10, 11)	ND-0.7% (ND)		No	Naturally present in the environment
Total Dissolved Solids, mg/L	N/A	1,000;1,500 ^{1,4}	130-810 (250)	340-570 (420)	No	Leaching from natural deposits
Total Trihalomethanes, µg/L ⁽⁹⁾	N/A	80	ND-14 (13)	1.1-20 (20)	No	By-product of drinking water chlorination
Turbidity, NTU	N/A	5 ⁽¹¹⁾	ND-1.8 (ND)	ND-0.1 (ND)	No	Leaching from natural deposits
Uranium, pCi/L	0.43	20	ND-13 (4.8)	N/A (6.1)	No	Erosion of natural deposits
Zinc, mg/L	N/A	5.0 ⁽¹¹⁾	ND-0.4 (ND)		No	Leaching from natural deposits
2020 UNREGULATED CONTAMINANT MONITORING⁽¹²⁾						
Bromide, µg/L ⁽¹³⁾		N/A	25-160 (58)		No	Erosion of natural deposits
Germanium, µg/L ⁽¹³⁾		N/A	ND-0.35 (ND)		No	Erosion of natural deposits
Haloacetic Acids (HAA6Br), µg/L ^(13, 14)		N/A	ND-9.4 (1.7)		No	By-product of drinking water chlorination
Haloacetic Acids (HAA9), µg/L ^(13, 15)		N/A	ND-18 (2.9)		No	By-product of drinking water chlorination
Manganese, µg/L		N/A	50 ⁽¹¹⁾		No	Erosion of natural deposits

FOOTNOTES:

- (1) Values with this footnote have fixed Secondary MCLs, remaining values are Primary MCLs unless identified otherwise.
- (2) Cove Communities includes the communities of Rancho Mirage, Thousand Palms, Palm Desert, Indian Wells, La Quinta, Mecca, Bombay Beach, North Shore, Hot Mineral Spa, and portions of Bermuda Dunes, Cathedral City, Indio, Oasis, Riverside County, Thermal, Valerie Jean, Desert Shores, Salton Sea Beach and Salton City.
- (3) ID No. 8 includes the communities of Indio Hills, Sky Valley, and select areas within and adjacent to Desert Hot Springs.
- (4) This constituent is monitored for aesthetics such as taste and odor. A fixed consumer acceptance contaminant level has not been established for this constituent.
- (5) The reported average represents the highest running annual average based on distribution monitoring.
- (6) Results from 2020 unregulated contaminant monitoring rule (UCMR4) testing for five Haloacetic Acids (HAA5) are included in Cove Community data. CVWD performed this monitoring at select CVWD domestic facilities in Cove Communities.
- (7) California's Chromium-6 drinking water MCL became effective on July 1, 2014. The Cr6 MCL was invalidated and withdrawn in 2017.
- (8) The reported values are 90th percentile levels for samples collected from faucets in water user homes.
- (9) The reported average represents the highest locational running annual average (LRAA) based on distribution system monitoring.
- (10) Systems that collect 40 or more samples per month (Cove Communities): 5.0% of monthly samples are positive. Systems that collect less than 40 samples per month (ID No. 8): 1 positive monthly sample.
- (11) All water systems are required to comply with the California Total Coliform Rule and the Federal Revised Total Coliform Rule. The USEPA anticipates greater public health protection as the new rule requires water systems that are vulnerable to microbial contamination to identify and fix problems.
- (12) In 2020, USEPA required unregulated contaminant monitoring (identified as UCMR4) for select CVWD domestic facilities in Cove Communities.
- (13) Unregulated contaminants are those for which USEPA and DDW have not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist both regulatory agencies in determining the occurrence of unregulated contaminants in drinking water and whether further regulation is warranted.
- (14) Results from 2020 unregulated contaminant monitoring rule (UCMR4) testing for six Haloacetic Acids (HAA6Br). CVWD performed this monitoring at select CVWD domestic facilities in Cove Communities.
- (15) Results from 2020 unregulated contaminant monitoring rule (UCMR4) testing for nine Haloacetic Acids (HAA9). CVWD performed this monitoring at select CVWD domestic facilities in Cove Communities.

MORE INFORMATION:

To receive a summary of CVWD's source water assessments or additional water quality data or clarification, call CVWD's Water Quality Division at (760) 398-2651.

Complete copies of source water assessments may be viewed at CVWD's office at 75-525 Hovley Lane East, Palm Desert, CA 92211.

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien. También puede llamar al CVWD al número de teléfono (760) 398-2651 o vaya a cvwd.org/CCR/Spanish2022.

Note: Above statement fulfills California Code of Regulations' requirement in section 64481(f).

Source: CVWD 2021-2022 Annual Review

Projected water use is shown in Table 5.

Table 5: Projected CVWD Retail Demands for Water (AFY)

Use Type	Additional Description	Projected Water Use				
		2025	2030	2035	2040	2045
Single Family		60,142	63,824	67,331	69,816	71,695
Multi-Family		6,873	7,245	7,742	8,267	9,045
CII		7,060	7,244	7,438	7,709	7,985
Landscape		34,193	36,205	38,226	39,865	41,516
Other		1,457	1,563	1,670	1,755	1,840
Losses		13,736	14,501	15,222	15,670	16,085
Total		123,461	130,582	137,629	143,082	148,166

Note: Projections based on demand projections in draft Alternative Plan Updates for Indio Subbasin and Mission Creek Subbasin. The projected demand increase from 2020 to 2025 reflects planned expansion of the service area to include areas not current connected to the CVWD system. The timing of this expansion will depend on the availability of grant funding.

Source: 2020 UWMP, Table 4-8.

Groundwater is the principal source of municipal water supply in the Coachella Valley. CVWD obtains groundwater from both Whitewater River and the Mission Creek subbasins. CVWD's non-urban, non-potable water supplies are comprised of recycled water and imported Colorado River water.

B. Description of Entities Contributing to Existing Facilities

CVWD has imported water supplies from the Colorado River and is a State Water Project (SWP) contractor. CVWD is not supplied by a wholesale supplier to meet its water demands

C. Wastewater Characteristics and Facilities

Sewer service providers in the Coachella Valley area, as shown in Figure 3, include Valley Sanitary District, Coachella Sanitary District, the City of Palm Springs and Mission Springs Water District.

CVWD operates five water reclamation plants (WRPs), two of which (WRP-7 and WRP-10) generate recycled water for irrigation of golf courses and large landscaped areas. WRP 1 and WRP 2 serve isolated communities near the Salton Sea. WRP-4 currently does not produce recycled water, however CVWD has plans to construct a tertiary treatment system with 1 MGD capacity by 2030. A sixth WRP (WRP-9) was decommissioned in July 2015.

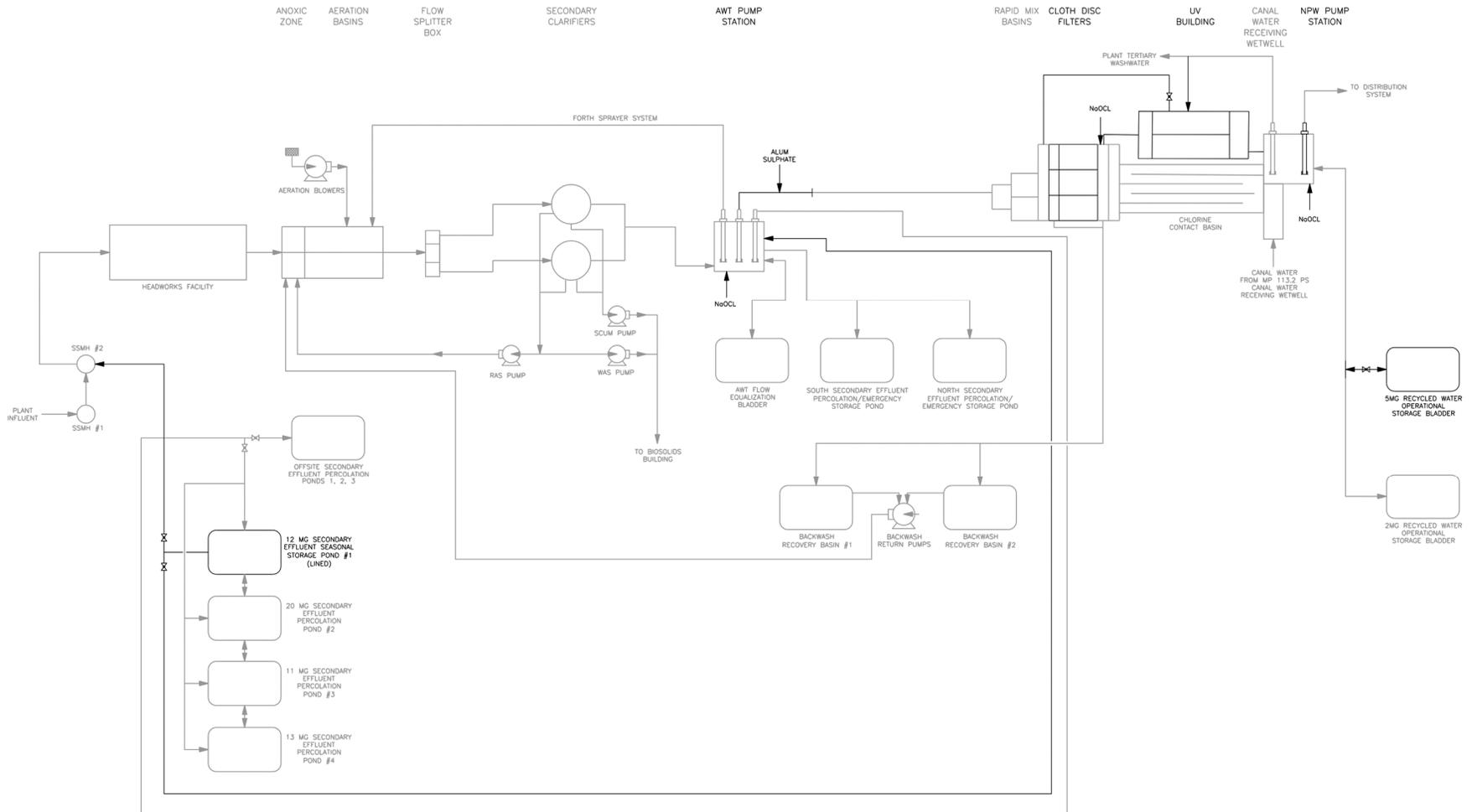
CVWD owns and operates a wastewater collection, treatment, and disposal system that provide sewerage service to a portion of the City of Indio and unincorporated areas of Riverside County, known as Water Reclamation Plant No. 7 (WRP 7 or Facility).

The wastewater treatment plant for the Facility is located at 80-609 Avenue 38 in Indio. The Facility was most recently regulated by Waste Discharge Requirements (WDRs) in Order R7-2022-0009, which was adopted by the Regional Water Board on February 8, 2022.

D. Wastewater Treatment Process Schematics

The wastewater treatment process schematic for WRP-7 is shown in Figure 7 below.

Figure 7: WRP-7 Schematic



E. Water Quality of Effluent

WRP-7 produces disinfected tertiary recycled water in accordance with Title 22 of California's Water Recycling Criteria.

III. Treatment Objectives for Discharge or Reuse

A. Project Objectives

Existing and future customers who would benefit from NPW deliveries from WRP 7 are shown on Figure 8. A range of different customers have been identified, including agriculture customers, golf courses, neighborhoods, and schools. The main objective of producing recycled water at WRP 7 for NPW irrigation is to offset current groundwater and canal water use.

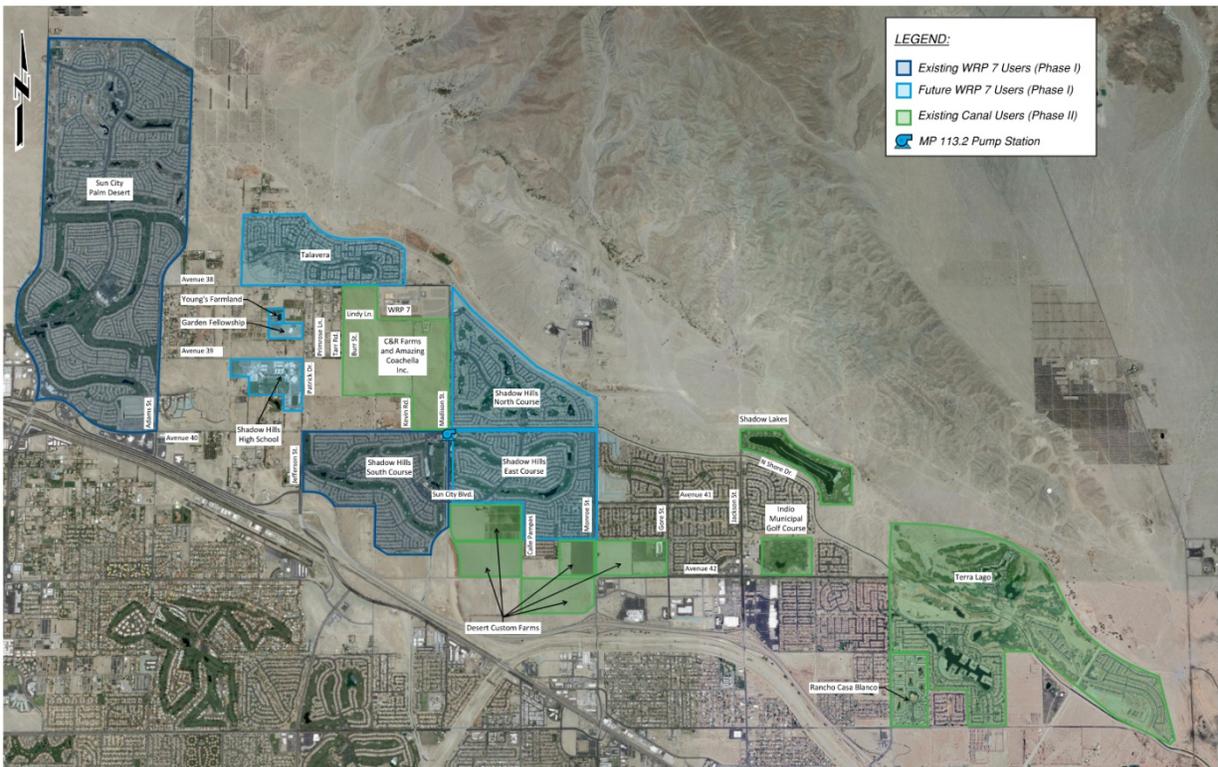
Customer Identification utilized CVWD historical meter delivery information, CVWD irrigation system GIS data, and institutional knowledge of the target area. Meter delivery information was matched with GIS meter numbers to connect customer names with meter usage.

The following key customer information includes:

- Customer Name
- Location
- Delivery Point Number (Sequentially assigned)
- Associated Meter Numbers (Note new meter number will be assigned for NPW Meters)
- Facility Type

Phase I and II customers were determined as part of the draft CVWD NPW Master Plan.

Figure 8: Existing and Future WRP 7 Customers



Customers identified in the Phase I area are summarized in Table 6 below. Six customers were identified as part of the Phase I expansion with a total of nine delivery points – three existing and six future.

Table 6: Phase I Customer Summary – Existing and Future WRP 7 Users

NAME	TYPE	LOCATION	DELIVERY POINT NO.	FACILITY TYPE
Sun City Palm Desert – Lake	Existing	Avenue 38 and Adam Street	1	Golf Course & Neighborhood
Sun City Palm Desert – Pond	Existing	Avenue 38 and Adam Street	2	Golf Course & Neighborhood
Shadow Hills South Course	Existing	Avenue 40 and Madison Street	3	Golf Course & Neighborhood
Talavera	Future	Avenue 38 and Goodman Road	4	Neighborhood
Young's Farmland	Future	Southwest of Avenue 38 and Jefferson St	5	Agricultural

NAME	TYPE	LOCATION	DELIVERY POINT NO.	FACILITY TYPE
Garden Fellowship	Future	Southwest of Avenue 38 and Jefferson St	6	Agricultural
Shadow Hills High School	Future	Avenue 39 and Jefferson Street	7	School
Shadow Hills North Course	Future	Avenue 40 and Madison Street	8	Golf Course & Neighborhood
Shadow Hills East Course	Future	Avenue 40 and Monroe Street	9	Golf Course & Neighborhood

Customers identified in the Phase II area are summarized in Table 7 below. Six customers were identified as part of the Phase II expansion with a total of nine delivery points.

Table 7: Phase II Customer Summary – Existing Canal Users for Potential WRP 7 NPW Conversion

Name	Location	Delivery Point No.	Facility Type
C&R Farms and Amazing Coachella Inc.	Lindy Lane and Madison Street	10	Agricultural
Shadow Lakes	Jackson Street and North Shore Drive	11	Neighborhood
Desert Custom Farms	Sun City Boulevard and Madison Street	12	Agricultural
Desert Custom Farms	Sun City Boulevard and Calle Pampas	13	Agricultural
Desert Custom Farms	Avenue 42 and Monroe Street	14	Agricultural
Desert Custom Farms	Avenue 42 and Monroe Street	15	Agricultural
Indio Municipal Golf Course	East of Avenue 42 and Jackson Street	16	Golf Course
Terra Lago	East of Avenue 44 and Golf Center Pkway	17	Golf Course & Neighborhood
Rancho Casa Blanca	East of Avenue 44 and Golf Center Pkway	18	Golf Course & Neighborhood

Note: Desert Custom Farms Meter 1327 was not included in Table 7 because historic meter data showed no use at this location.

B. Performance Characteristics and On-Site Requirements

The NPW Pump station has a total of five pump bays. Bays #1 and #2 each house a 4,600 gpm (6.6 MGD) pump, Bay #3 houses a 50 gpm jockey pump, and Bays #4 and #5 are reserved for Phase I and II expansions. The existing NPW Pumps are shown on Figure 9.

Figure 9: Existing NPW Pump Station



Design criteria for the existing NPW Pump Station is shown in Table 8. This information was taken from the design criteria included in the Water Reclamation Plant No. 7 Phase 2 Expansion (Specification No. 93-28) Record Drawings and information obtained from Pentair based on pump serial numbers.

Table 8: NPW Pump Station Existing Facilities

Parameter	Value (Main Pumps)	Value (Jockey Pump)
Total Installed Capacity	13.2 MGD (9,200 gpm)	50 gpm
Rated Capacity	6.6 MGD (4,600 gpm)	50 gpm
Rated Head	130 ft	130 ft
Installation Date	1997	1997
Number of Pumps	2 (1 duty, 1 standby)	1
Pump Type	Vertical Turbine	Vertical Turbine
Drive Type	VFD	Unknown
Motor Size	200 hp	5 hp
Max Motor Speed	1,180 rpm	1,800 rpm
Pump Discharge Header	16-inch	8-inch
Flow Meter	10-inch	

Based on customer estimated demands summarized in Table 9, the NPW pump station should be designed, at a minimum, to achieve the capacities shown in Table 9 to meet customer demands.

Table 9: NPW Pump Station Design Capacity Minimums

Phase	GPM	MGD
Phase I	5,235	7.5
Phase I & II	9,366	13.5

The NPW pump station will need at least 5,235 gpm design capacity for Phase I and 9,366 gpm design capacity for Phase II. See Table 10 for a summary of recommended improvements at the NPW pump station. See Figure 10 for the NPW pump station rendering.

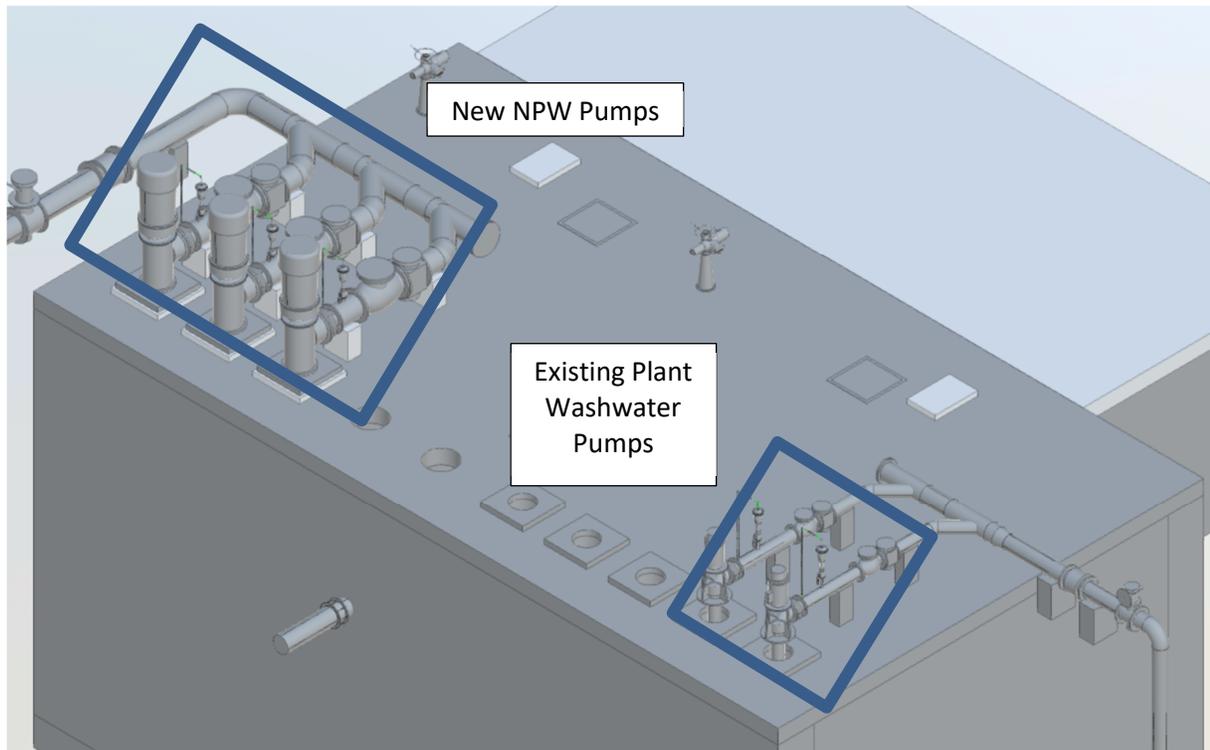
Keeping the size of the pumps consistent will permit operations to rotate lead+lag assignments on the pumps to lengthen their lifespan and minimize the variety of spare parts needed for the pump station. The NPW pump station was constructed in 1994 and was placed into service in 1997. The existing pumps have been in operation for 25 years which is past the typical 20-year life for pumps of similar type and size. CVWD’s asset management data indicates the pumps have less than two years of remaining life, therefore it is recommended the existing pumps #1 and #2 and their VFDs be replaced as part of this project.

In an interest of fiscal consideration and O&M simplification, the recommended improvements are to remove the two existing main pumps and jockey pump from service and install three (3) new 5,200 gpm pumps in Bays #1, #2, & #3. Additional capacity is included as contingency and buffer to prevent the pump station operating at 100% capacity during peak flow in summer months.

Table 10: NPW Pump Station Design Options

Parameter	Phase I	Phase I & II
Recommended Modification	Install three (3) 5,200 gpm pumps	No required modification based on capacity
Pump Station Rated Design Capacity	10,400 gpm (15.0 MGD)	10,400 gpm (15.0 MGD)
Pump Station Total Installed Capacity	15,600 gpm (22.5 MGD)	15,600 gpm (22.5 MGD)
Minimum Rated Design Capacity	5,235 gpm (7.5 MGD)	9,366 gpm (13.5 MGD)

Figure 10: NPW Pump Station Rendering



The MP 113.2 Pump Station has a total of three existing pumps which includes two 2,800 gpm (4 MGD) pumps and a 50 gpm jockey pump, within a 10-foot internal diameter (ID) circular wet well. Record drawings indicate space for a future pump which appears to have the same footprint as the existing 2,800 gpm pumps. There is an existing turnout structure with traveling screen and 30-inch sluice gate located in the Coachella Canal which conveys water to the MP 113.2 wet well via a 30-inch RCP. There is an existing pump and wet well located adjacent to the MP 113.2 wet well within the property boundary. It is assumed that this pump station will not be modified as a part of this project.

Figure 11: Existing MP 113.2 Pump Station (Left) and Pump Station at Gate MP 113.2 (Right)



Design criteria for the existing MP 113.2 Pump Station are shown in Table Table 11. This information was taken from Del Webb’s Sun City Palm Springs Irrigation Pump Station 113.2 and Canal Turnout Record Drawings.

Table 11: MP 113.2 Pump Station Existing Infrastructure

Parameter	Turbine Pumps	Jockey Pump
Total Installed Capacity	5,600 gpm (8.0 MGD)	50 gpm
Rated Capacity	2,800 gpm (4.0 MGD)	50 gpm
Rated Head	128 ft	123 ft
Installation Date	1993	1993
Number of Pumps	2 (1 duty, 1 standby)	1
Pump Type	Vertical Turbine	Vertical Turbine
Drive Type	VFD	Across the Line
Motor Size	150 hp	3 hp
Max Motor Speed	1,175 rpm	1,800 rpm
Number of Stages	3	7
Suction Piping	30-inch	
Discharge Piping	12-inch	6-inch
Wet well	10-foot ID Circular Concrete Wet well	
MP 113.2 Discharge Pipeline	18-inch	

Estimated WRP 7 plant influent was determined as part of CVWD’s Sanitation Master Plan. With this project, WRP 7 will recycle 100% of plant influent therefore plant influent will be approximately equal to tertiary effluent. CVWD plans to have Phase I and II pipeline expansion projects complete by 2030. Table 12 shows the 2030 WRP 7 Tertiary Effluent Supply flows based on the Sanitation Master Plan plant influent data for 2030.

Table 12: WRP 7 Tertiary Effluent Supply

Design Condition	GPM	MGD
Minimum Day	2361	3.4
Average Day	2917	4.2
Maximum Month Average Day	3333	4.8
Maximum Day	3611	5.2

Historical flow data for WRP 7 shows that low flow periods occur during summer months. As part of the subsequent capacity analysis, calculations will be based on the minimum day flow of 2361 gpm (3.4 MGD).

To fill the deficit between the tertiary effluent supply and customer demand, canal water will continue to be pumped to WRP 7 to blend with tertiary effluent and provide adequate supply to meet those customer demands. Table 13 calculates the design capacity for MP113.2 based on the difference between Customer Demand and Tertiary Supply. The analysis assumes the same tertiary supply for both Phase I and II.

Table 13: NPW Pump Station Design Capacity Minimums (GPM)

PHASE	PHASE I	PHASE I & II
Customer Demand (-)	5235	9366
Tertiary Supply (+)	2361	2361
MP113.2 Supply (+)	2874	7005

Based on customer estimated demands summarized in Table 22 and estimated tertiary supply summarized in Table 12, the MP113.2 pump station should be designed, at a minimum, to achieve the capacities shown in Table 14 to meet customer demands.

For Phase I, customer demands will require a maximum of 2874 gpm (4.1 MGD) of supplemental canal water. The existing MP 113.2 Pump Station currently has a rated capacity of 4 MGD (2,800 gpm) which is not sufficient to meet Phase I demands.

During Phase II, customer demands will require up to 7005 gpm (10.1 MGD) of supplemental canal water. To achieve a desired 2+1 pump configuration for Phase II, MP 113.2 will require three (3) 3800 gpm (5.5 MGD) pumps. A summary of the recommended improvements are shown in Table 15. A 2+1 3800 pump configuration will provide operations staff with a greater range of flow capabilities to meet the variation in supplemental canal demand throughout the year.

In an interest of fiscal consideration and O&M simplification, the recommended improvements are to remove the jockey pump from service and replace the existing pumps with three (3) 3800 gpm (5.5 MGD) pumps. Installing three pumps of similar size will permit operations to rotate lead+lag assignments on the pumps to lengthen their lifespan and minimize the variety of spare parts needed for the pump station. Installing all three pumps today will allow CVWD to seamlessly expand to Phase II with no necessary improvements to MP 113.2. Additional capacity is included as contingency and buffer to prevent the pump station operating at 100% capacity during peak flow in summer months.

Table 15: MP 113.2 Pump Station Recommended Improvements

PARAMETER	PHASE I	PHASE II
Modification Required due to Capacity	Replace existing pumps with three (3) 3800 gpm (5.5 MGD) pumps	No required modification based on capacity
Pump Station Rated Design Capacity	7600 gpm (11 MGD)	7600 gpm (11 MGD)
Pump Station Total Installed Capacity	11400 gpm (16.5 MGD)	11400 gpm (16.5 MGD)
Minimum Rated Design Capacity	2874 gpm (4.1 MGD)	7004 gpm (10.1 MGD)

MP 113.2 pump station site rehabilitation will include all new mechanical, electrical, and I&C equipment. Facilities will be designed for ultimate Phase II capacity which includes:

- Pumps
- Motors
- Yard piping
- Motor Control Center (MCC)
- Variable Frequency Drives (VFD)
- HVAC units
- Surge Tank
- Flow Meter
- Isolation & Check Valves
- Air Vac
- Main Circuit Breaker
- Manual Transfer Switch (MTS)
- Programmable Logic Controller (PLC)
- Radio
- Pressure Sensor
- Level Monitoring System
- Shade Roof

It is recommended that the existing circular wet well undergo field evaluation to confirm existing structural condition, determine any required mitigation measures, as well as to determine if it is sufficient for the pump modifications required to meet Phase II demands.

Hydraulic modeling performed showed that the existing 18-inch canal water pipeline from MP 113.2 to WRP 7 is capable of conveying 6.9 MGD while accounting for CVWD’s design criteria requirement of 7 ft of

head loss per 1000 feet of pipe (see Table 16 for CVWD design criteria). Details for the results of the hydraulic modeling performed on the 18-inch line can be found in Table 16. The existing 18-inch raw water line will continue to meet Phase I demands. The pipeline will need to be increased in size to 24” once the Phase II customers are connected to the NPW distribution system.

Table 16: Existing 18-inch Pipeline Design Criteria

CRITERIA	CVWD DESIGN CRITERIA	PHASE I	PHASE II
Distribution Pipe size	--	18-inch	24-inch
Maximum Flow (gpm)	--	2,874	7,005
Maximum Velocity (fps)	7.5	3.4	5.0
Maximum Head loss per 1000 feet (ft)	7	1.85	3.5
Pipeline Max Capacity	--	4800 gpm (6.9 MGD)	--

The existing NPW Distribution System includes two pipelines. An 18-inch PVC pipeline that begins at WRP 7 and heads west on Avenue 38 to Sun City Palm Desert and a 6-inch PVC pipeline that begins at WRP 7 and heads east on Avenue 38 then turns south on Madison Street to Shadow Hills South Course as shown on Figure 12.

There is an existing 18-inch pipeline that conveys water from the MP 113.2 Pump Station to the NPW Pump Station shown on Figure 12. The 18-inch pipeline conveys canal water into the Canal Water Wet well which is connected to the NPW Pump Station. There is a 24-inch line that conveys NPW to the 18-inch NPW pipeline that delivers water to Sun City Palm Desert as well as the 6-inch NPW pipeline that delivers water to Shadow Hills South Course.

Figure 12: Existing NPW Pipelines



Design criteria from the CVWD Development Design Manual along with the preliminary pipe alignment and customer historical demands were used to perform pipeline modeling to evaluate the existing NPW distribution system. Design criteria from Section 9.4 of the CVWD Development Design Manual are shown in Table 17.

Table 17: Pipe Design Criteria

DESIGN CRITERIA	STANDARD
Maximum Velocity	12 inch and smaller - 7.5 ft/sec
Maximum Head loss	18 inch and larger - 7 ft/1000 feet of pipeline

Design criteria per CVWD standards for domestic water pipeline for the NPW distribution system is presented in Table 18.

Table 18: NPW Distribution System Design Criteria

DESIGN CRITERIA	2 TO 16-INCH	18 TO 28-INCH
Material	PVC DR 25	DIP C151
Pressure	165 psi	250 psi
Pipeline Size	2 to 16-inch	18 to 28-inch
Max Velocity	7.5 ft/sec	N/A
Max Head loss per 1000'	7.0 ft	7.0 ft

Pipeline modeling was performed based on Customer Estimated Demands provided by CVWD. Each discharge point for customer delivery was assumed to be at grade with no residual pressure. Phase I will provide water to delivery points 1 through 9 and Phase II to delivery points 10 through 18. The pipeline model results for Phase I & II are shown in Table 19.

Table 19: Pipeline Model Results for WRP 7 Phase I & II

CRITERIA	MODEL RESULTS
Minimum Velocity (ft/s)	1.0
Average Velocity (ft/s)	3.1
Maximum Velocity (ft/s)	5.0
Maximum Head loss per 1000 ft of Pipe (ft)	5.0

The modeling results indicate that the existing 18-inch line (See Figure 12 & Figure 13) to Sun City Palm Desert is sufficient for Phase I and II and will not require upsizing. Two new branches off of the existing 18-inch pipe will be required, one 8-inch to service Talavera and one 12-inch to service Young's Farmland, Garden Fellowship, and Shadow Hills High School.

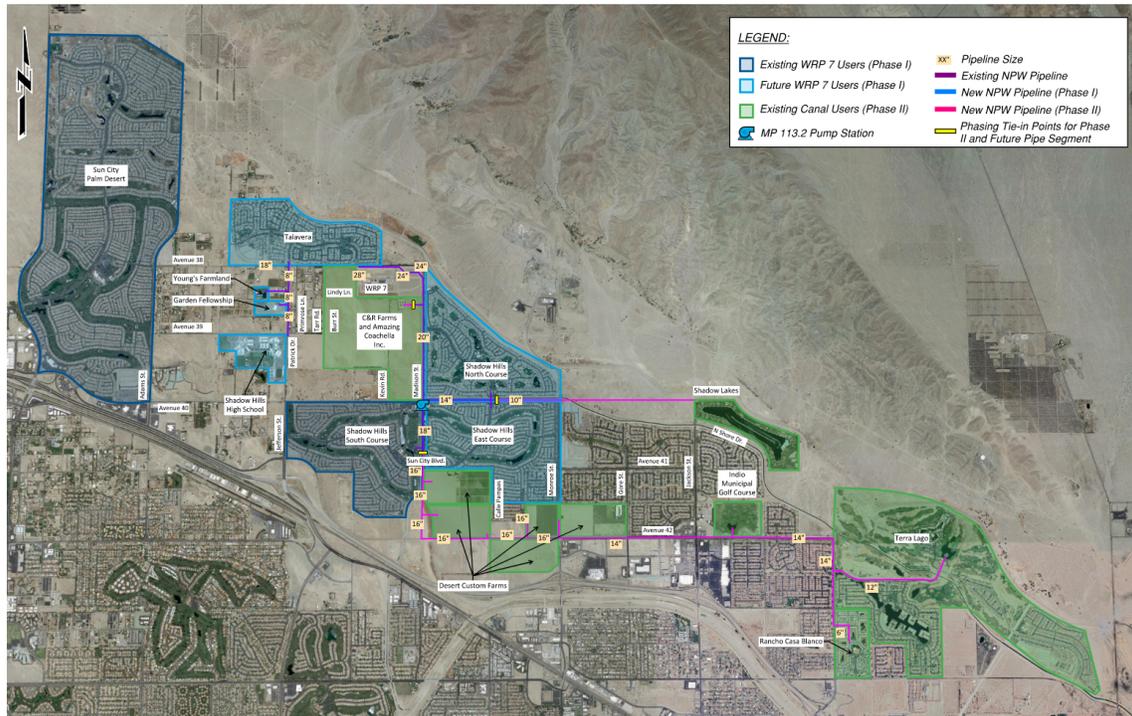
Modeling indicates that the existing 6-inch line to Shadow Hills South Course (See Figure 12) is not sufficient for Phase I or Phase II. The existing 6-inch will need to be increased to 28" at WRP 7 (See Figure 13) and will gradually decrease in size as customer deliveries are made along the distribution system.

The following improvements are shown on Figure 13. For Phase I, the distribution system will need to be extended to the east at Avenue 40 to service Shadow Hills North Course and Shadow Hills East Course. For

Phase II, the branch on Avenue 40 will need to be extended to the east to service Shadow Lakes and an extension will be required on Madison south of Shadow Hills South Course and to the east at Avenue 42 to service the four Desert Custom Farms delivery points, the Indio Municipal Golf Course, Terra Lago, and Rancho Casa Blanco.

The preliminary Phase I and Phase II NPW pipe alignment and pipe diameters are shown on Figure 13.

Figure 13: NPW Distribution System Pipeline Sizes



C. Customer Demand Flow Rates

Customer estimated demands were calculated using values developed as a part of CVWD's Non-potable Water Master Plan. An acre-feet per year (APY) value was provided for each customer. The acre-feet per year (APY) was converted to acre-feet per day (AFD) and then a 1.56 peaking factor was used to identify peak daily demands during summer months when non-potable water demand is high and WRP 7 influent and tertiary effluent are low. The peak daily demand is the value used for sizing the pump stations and pipelines as described in the next section. Peak daily demands are shown in both Gallons Per Minute (GPM) and Million Gallons per Day (MGD). This analysis assumes that customer water orders will be filled over 24 hours and not 12 hours based on input from CVWD operations.

Table 20 shows the calculation for developing the peak demand for Phase I customers that will be used to size the non-potable water and MP113.2 pump stations and the non-potable water pipeline.

Table 21 shows the calculation for developing the peak demand for Phase II customers that will be used to size the non-potable water and MP113.2 pump stations and the non-potable water pipeline.

Table 22 summarizes the Phase I and Phase II customer demands, and detailed demand data are included in Appendix C.

Table 20: Phase I Estimated Customer Demands

Customer	AFY	AFD	PEAK AFD	PEAK GPM	PEAK MGD
Dell Webb Lake / Sun City Palm Desert	1,382	3.78	5.90	1,336	1.9
Dell Webb Pond / Sun City Palm Desert	1,382	3.78	5.90	1,336	1.9
Shadow Hills - South Course	492	1.35	2.10	476	0.7
Talavera	107	0.29	0.46	103	0.1
Young's Farmland	354	0.97	1.51	342	0.5
Garden Fellowship	32	0.09	0.14	31	0.0
Shadow Hills High School	40	0.11	0.17	39	0.1
Shadow Hills - North Course	1,234	3.38	5.27	1,193	1.7
Shadow Hills East Course	391	1.07	1.67	378	0.5
Phase I	5,413	14.8	23.1	5,235	7.5

Table 21: Phase II Estimated Customer Demands

Customer	AFY	AFD	PEAK AFD	PEAK GPM	PEAK MGD
C&R Farms Meter 9097	1,302	3.57	5.56	1,259	1.8
Shadow Lakes Meter 9044	521	1.43	2.23	504	0.7
Desert Custom Meter 1652	55	0.15	0.24	53	0.1
Desert Custom Meter 1666	100	0.27	0.43	97	0.1
Desert Custom Meter 9077	155	0.42	0.66	150	0.2
Desert Custom Meter 1336	328	0.90	1.40	317	0.5
Indio Muni Meter 1728	309	0.85	1.32	299	0.4
Terra Lago	1,315	3.60	5.62	1,272	1.8
Rancho Casa Blanca	186	0.51	0.79	180	0.3
Phase II	4,271	11.7	18.3	4,131	5.9

Table 22: Phase I & Phase II Project Customer Demands Summary

PHASE	AFY	AFD	PEAK AFD	PEAK GPM	PEAK MGD
Phase I	5,413	15	23	5,235	7.5
Phase II	4,271	11.70	18.25	4,131	5.9
Phase I & II	9,684	26.5	41.4	9,366	13.5

IV. Project Alternatives Analysis

A. Planning and Design Parameters

Currently, CVWD maintains one additional water recycling facility designated WRP 10 and is converting WRP 4 to a water recycling facility by 2024. WRP 7 presently includes 2.5 million gallons per day (MGD) of dual media gravity filters, and WRP 10 includes 10 MGD multi-media gravity filters and 5 MGD of continuous backwash upflow filters. This project is to expand the WRP 7 tertiary system to a capacity of 5.5 MGD (a 3 MGD increase) with planning considerations for a future expansion to 6.2 MGD. Initial discussions with CVWD staff indicate a desire to maintain similar filtration technology between WRP 4, WRP 7, and potentially WRP 10. Although this evaluation establishes quantifiable filtration system evaluation criteria for WRP 7 that considers capital cost (CAPEX) and operating expense (OPEX), filtration technology standardization is another factor considered in this evaluation. Technologies included in this

evaluation are Dual Media Gravity, Continuous Backwash Upflow, Cloth Media Disc, and tertiary membranes. Results of a similar evaluation for WRP 4 yielded Cloth Media disc filtration as the optimal technology.

B. Detailed Alternative Analysis

In March 2021, in coordination with the evaluation of Tertiary Treatment Alternatives for WRP 7, operations staff performed bench scale turbidity testing of samples from secondary clarifier effluent (sample location: filter feed pump effluent pipe) and filter influent following addition of aluminum sulfate injection. Data collected from the testing indicates a median filter influent turbidity of 1.49 NTU. Based on this information, it is recommended that the tertiary system coagulation system be conservatively designed based on a median filter influent turbidity of <5 NTU and an expected filter effluent of <2 NTU. Similar to the current coagulation facilities at WRP 10 and the future WRP 4 tertiary system, the current recommendation is an in-line, continuous coagulation be implemented for the tertiary system expansion at WRP 7.

Table 23 provides a summary of CAPEX and OPEX costs for different technologies to achieve a 5.5 MGD filtration installation to treat the WRP 7 effluent. Baseline costs are based on the expansion of the existing dual media filtration system. Costs for cloth media filtration are based on the use of 5-micron cloth media fabric which has been conditionally approved by DDW.

Economic analysis for the new filtration system indicates that retrofitting the existing dual media filter basins with cloth media filter system is the lowest cost on a present worth basis. To meet Water Recycling Criteria (WRC), California Code of Regulations, Title 22, Division 4, Chapter 3, Section 60351 reliability requirements, each technology must come with multiple units and be able to treat the entire flow with a single unit out of service. Given this requirement, a Cloth Media retrofit of the dual media basins needs to be installed in multiple basins. Utilizing 3 trains of 6 discs, the CAPEX for the cloth media already includes the disc space to meet the future 6.2 MGD plant influent flows (and up to 10 MGD) as additional discs can be added to the basins while still meeting reliability requirements and other design criteria. The cost of expansion is significantly less for cloth media versus the cost of the full additional train for any alternative.

In the future, expansion to 6.2 MGD with this cloth disc system will not require additional filter basins or trains as additional filter discs can be added in each of the existing 3 basins. Based on the wholistic analysis of the current project and future potential, Black & Veatch recommends installation of three 6-disc systems in the existing concrete filter basins at CVWD WRP 7. This recommendation is preferred as it has the lowest Net Present Value and OPCC for this project, has the lowest cost for expansion to 6.2 MGD, and provides filter technology consistency with future WRP 4 and WRP 10 filtration systems. Cloth Disc has successfully been retrofitted into both existing dual media gravity and upflow tertiary filters as a part of other tertiary filtration projects.

Table 23: CAPEX/OPEX Filtration Present Worth Cost Comparison for 5.5 MGD System

FILTER TYPE	DUAL MEDIA GRAVITY	CLOTH DISC – RETROFIT	CLOTH DISC – NEW TANK	MEMBRANE	UPFLOW
Opinion of Probable Construction Cost	\$3.2M	\$2.2M	\$3.2M	\$8.0M	\$3.6M
Operating Costs Present Value	\$2.7M	\$1.9M	\$1.9M	\$14.3M	\$2.7M
Lifecycle Operating Costs + OPCC Present Value	\$5.9M	\$4.1M	\$5.0M	\$22.3M	\$6.4M

V. Selected Project

A. Detailed Description of Project Facilities

Advanced Water Treatment (AWT) Pump Station – Three (3) new filter feed pumps, identical in size and capacity to the existing filter feed pumps, will be installed and tied into the existing manifold to handle increased flows to the tertiary system. The new capacity of the filter feed pumps will be 6.2 MGD which will meet 2040 projected flows.

Seasonal Storage – As part of a phased work plan that will eliminate percolation of secondary effluent, on-site seasonal storage will include lining Pond #1 to store undisinfected secondary effluent during times of low NPW demand. Flow will then be returned to the AWT for tertiary treatment.

Rapid Mix Basins – Based on March 2021 measured turbidity levels, continuous, in-line coagulation will be used. The two existing rapid mix basins will remain operational, and no additional basins will be constructed. The aluminum sulfate injection point will be moved upstream to maximize contact time and coagulation.

Cloth Disk Filters – The existing dual media gravity filters, backwash pumps, and air scour system will be removed, and the filter basins will be retrofitted with three new outside-in cloth disk filter systems. These systems will be designed for a fully redundant 5.5 MGD capacity with space for future disks to be installed and increase capacity to 6.2 MGD with no additional filter systems or basins.

Chlorine Contact Basin (CCB) – The existing CCB will be taken offline.

UV Building & Disinfection – A new masonry block building will house the new UV disinfection system in a 1+1 channel system to provide full redundancy. The system will be designed for 5.5 MGD and 55% UVT with expansion planning for 6.2 MGD. The facility will be located adjacent to the existing CCB.

NPW Pump Station – Three (3) new 5200 gpm NPW pumps will be installed and replace the existing pumps. The new pumps will be able to meet Phase I & II customer demands.

Operational Storage – A new 5 MG NPW bladder will be installed alongside the existing 2 MG NPW bladder. The new bladder will operate on similar hydraulics and control as the existing bladder. The new

bladder would connect via an existing blind flange located on the pipe connecting the NPW wet well to the existing 2 MG storage bladder.

Chemical Storage and Feed – The aluminum sulfate system will be replaced with like and kind for the storage tank and piping. The existing diaphragm pumps will be replaced by peristaltic pumps. The aluminum sulfate injection point will be relocated to immediately downstream of the filter feed flow meter. New recirculation pumps would support adequate mixing at the point of injection.

No polymer system will be added as a part of this project.

A new sodium hypochlorite chlorine disinfection system will be installed to provide maintenance dosing at the AWT wet well, UV influent channel, and NPW pump station.

Electrical Building – Current proposed facilities include modifying the existing MCC3 to replace buckets that supported the existing backwash and air scour systems, using currently empty buckets, and adding on new panels to support the new equipment. The existing MCC3 will be partially relocated to permit a new temperature-controlled masonry block building to be installed around the existing and new electrical and telemetry equipment to support the tertiary system expansion. A generator analysis will be performed as well to determine if the existing generator needs to be increased in size to support the additional loads.

MP113.2 Pump Station – Three (3) 3800 gpm pumps will replace the existing pumping system to provide adequate flow to meet Phase I & II customer demands. The existing mechanical, electrical, and telemetry assets at the site will be replaced as part of this project as well.

Young’s Farm NPW Distribution System - This Phase 1 NPW Improvements Project includes the installation of the Young’s Farm NPW conveyance pipeline, consisting of 1,200 linear feet (LF) of 12-inch pipeline and 920-LF of 6-in on-site pipeline.

Future NPW Distribution System – The existing 18-inch line to Sun City Palm Desert is sufficient for Phase I and II and will not require upsizing. A new branch off of the existing 18-inch pipe will be required to service Talavera The existing 6-inch line to Shadow Hills South Course is not sufficient for Phase I or Phase II. The existing 6-inch will need to be increased to 28” at WRP 7 and will gradually decrease in size as customer deliveries are made along the distribution system. For Phase I, the distribution system will need to be extended to the east at Avenue 40 to service Shadow Hills North Course and Shadow Hills East Course. For Phase II, the branch on Avenue 40 will need to be extended to the east to service Shadow Lakes and an extension will be required on Madison south of Shadow Hills South Course and to the east at Avenue 42 to service the four Desert Custom Farms delivery points, the Indio Municipal Golf Course, Terra Lago, and Rancho Casa Blanco.

B. Design Criteria

The WRP 7 design will need to address various construction parameters. Materials of construction will need to be selected to mitigate corrosive soil conditions that can deteriorate concrete and common metals. Phasing of construction work will be performed in the following stages:

1. Installation of pumps and construction of the new facilities will occur. These facilities will be constructed with minimal impact to daily operations and on-goings at WRP 7.

2. Tie-in to the existing system will then occur during low flow season. Temporary bypass pumping will be utilized for the secondary effluent to the filtration system when the new filter feed pumps are installed and connected.
3. Filters will be replaced one by one using existing isolation valves. Filters will continue to discharge to the existing CCB while the UV building connections are constructed.
4. Temporary storage and feed system will be utilized during the replacement of the existing aluminum sulfate storage and feed system. The existing chlorine gas system will remain online while the new chlorine storage and feed system is installed.
5. Improvements at the NPW Pump Station will occur during low NPW season. Pumps will be replaced one by one to keep the pump station online.
6. MP113.2 Pump Station upgrades will be completed during low NPW season with bypass pumping utilized as necessary.

C. Opinion of Probable Construction Costs (OPCC)

An AACE Class 4 Opinion of Probable Construction Cost for the WRP 7 NPW Improvements project is shown in Table 24. The detailed cost estimate is included in Appendix D.

Table 24: WRP 7 OPCC

CAPEX (OPCC)	WRP 7
AWT Pump Station	\$283,200
UV Building	\$3,044,000
Seasonal Storage Pond	\$1,203,100
Filter Facility	\$1,090,500
Chlorine Contact Basins	\$27,900
NPW Pump Station	\$380,200
Operational Storage Pond	\$742,600
Chemical Storage & Feed	\$255,300
Electrical/MCC Canopy	\$43,500
MP 113.2 Pump Station	\$578,700
Rapid Mix Basins	\$27,900
Electrical	\$1,363,600
Instrumentation	\$501,800
Yard Piping	\$975,500
NPW Distribution System	\$836,200
Young's Farm Pipeline	\$750,000
Direct Cost Subtotal	\$12,104,000
Subcontractor Markups	\$1,806,350
Risk Assessment Markups	\$1,585,800
General Requirements	\$2,267,500
Contractor Fee	\$2,614,400
Insurances & Bond	\$352,600
Construction Subtotal	\$20,730,650
CVWD Administration (30%)	\$6,219,195
OPCC Total	\$26,949,845

D. Implementation Schedule

The current schedule aims to reach substantial completion in 2025 and have the new systems on-line in late 2025. See Figure 14 for the proposed implementation schedule.

Figure 14: Implementation Schedule

Year	2022	2023	2024	2025
Design, Bid, Permit	█			
Construction		█		
Testing & Startup				█

E. Permits Required for Project Implementation

Permits are anticipated to be required for the WRP 7 improvements from the following agencies:

- State Water Resources Control Board
- Regional Water Quality Control Board
- City and County Fire Marshal
- Riverside County Department of Building and Safety

Appendix A – Table of Abbreviations

Acronym	Description
AF	Acre-foot or acre-feet
AFY	Acre-feet per Year
BOR	Bureau of Reclamation
CC	Country Club
CEQA	California Environmental Quality Act
CWSRF	Clean Water State Revolving Fund
CVWD	Coachella Valley Water District
DWA	Desert Wastewater Authority
IS/MND	Initial Study/Mitigated Negative Declaration
IWA	Indio Water Authority
MVP	Mid-Valley Pipeline
NPW	Non-Potable Water
PC	Pumping Cost
RAC	Replenishment Assessment Charge
SRF	State Revolving Fund
SWRCB	State Water Resources Control Board
WRFP	Water Recycling Funding Program
WRP	Water Reclamation Plant

Appendix B – CEQA Compliance

CVWD will be completing an Initial Study/Mitigated Negative Declaration (IS/MND) for the subject project, to be recorded prior to the funding agreement. The IS/MND will be tiered from the Programmatic Environmental Impact Report (PEIR) prepared for the 2022 Sanitation Master Plan Update, which includes the proposed WRP 7 NPW Improvements (Volume 3 of the 2022 SMP is attached).

To date, CVWD has initiated the cultural and biological Federal cross-cutter studies. The District has completed background research, including historic aerial and topographic map review, received the results of the records search of the California Historical Resources Information System (CHRIS) from the Eastern Information Center, located at University of California, Riverside campus, and received the results of the Sacred Lands File search from the Native American Heritage Commission (NAHC).

The purpose of the CHRIS records search was to determine the extent of previous surveys within a 0.5-mile (800-meter) radius of the Proposed Project location, and whether previously documented pre-contact or historic archaeological sites, architectural resources, or traditional cultural properties exist within this area. EIC staff completed and returned the records search to ECORP on October 14, 2022. The CHRIS records search results indicate 16 previous cultural resource investigations have been conducted in or within 0.5 miles of Project, covering approximately 52 percent of total area around Project. Of these 16 studies, two studies encompass portions of the Project, one completed in 1979 and the second one completed in 1996. Both reports cover approximately half of Project. In addition, a total of four previously recorded resources are located within 0.5-mile (800-meter) radius of the Project. Of these, three are believed to be associated with Native American occupation of the vicinity, and one is a historic-era site, associated with the Coachella Canal. There are no previously recorded resources located within the Project Area.

The purpose of the Sacred Lands File search was to determine whether or not the California Native American tribes within the Project Area have recorded Sacred Lands, because the Sacred Lands File is populated by members of the Native American community with knowledge about the locations of tribal resources. In requesting a search of the Sacred Lands File, ECORP solicited information from the Native American community regarding Tribal Cultural Resources (TCRs), but the responsibility to formally consult with the Native American community lies exclusively with the federal and local agencies under applicable state and federal laws. The NAHC responded back stating the search failed to indicate the presence of Native American cultural resources in the Project Area. Tribal Consultation Support has not occurred yet until coordination with the lead agency, SWRCB, has taken place. This coordination set-up is currently on-going.

A review of historic aerials and topographic maps depict the Project Area has been used previously for agriculture. Any structures depicted in historic-age aerials and maps are no longer present by 1984. The site has been utilized in its current configuration as a water treatment plant by the early 1990s. The 2010 cultural resource assessment conducted for the 2015 IS/MND for CVWD's Water Reclamation Plant No. 7 Biosolids Upgrade Project yielded negative results for cultural resources. Based on the current data collected for the project thus far, no known constraints are anticipated at this time. This preliminary finding does not include a field visit or additional archival research, which may reveal further information regarding potential resources in the Project Area.

Appendix C – Demand Tables

Project Name: CVWD WRP 7
 BV Project Number: 407944
 Document Title: Customer Table
 Updated: 4/7/2021

Phase	Customer Name	Delivery Point	Customer Status	Location	Meter No.	Data Utilized	Land Use	Projected Monthly Average Usage (MGD)											
								Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
I	Dell Webb/Sun City Palm Desert - Lake ⁽¹⁾	1	Existing WRP 7	Avenue 38 and Adam Street	Dell Webb Lake	Demand Summary	Golf Course/Housing Community	0.00	0.34	0.97	1.85	2.08	2.13	2.42	2.48	1.66	1.15	0.00	0.24
I	Dell Webb/Sun City Palm Desert - Pond ⁽¹⁾	2	Existing WRP 7	Avenue 38 and Adam Street	Dell Webb Pond	Demand Summary	Golf Course/Housing Community	0.00	0.39	1.12	2.13	2.39	2.45	2.78	2.85	1.90	1.33	0.00	0.28
I	Shadow Hills South Course - NPW ^(1,2)	3	Existing WRP 7	40th Avenue and Madison Street	Shadow Hills Flow Meter	Demand Summary	Golf Course/Housing Community	0.00	0.05	0.14	0.27	0.30	0.31	0.35	0.36	0.24	0.17	0.00	0.03
I	Talavera ⁽¹⁾	4	Future WRP 7	Avenue 38 and Goodman Road	Numerous	Demand Summary	Housing Community	0.01	0.02	0.09	0.11	0.08	0.13	0.17	0.16	0.14	0.10	0.05	0.07
I	Young's Farmland ⁽¹⁾	5	Future WRP 7	Southwest of Avenue 38 and Jefferson St	642349-2 (Domestic) 08-07317 (RAC)	Demand Summary	Farmland	0.18	0.24	0.28	0.25	0.13	0.52	0.47	0.40	0.61	0.32	0.27	0.13
I	Garden Fellowship ⁽¹⁾	6	Future WRP 7	Southwest of Avenue 38 and Jefferson St	254753-2 (Domestic)	Demand Summary	Farmland	0.02	0.02	0.03	0.02	0.01	0.05	0.04	0.04	0.06	0.03	0.02	0.01
I	Shadow Hills High School ^(1,3)	7	Future WRP 7	Avenue 39 and Jefferson Street	6201517-1 (Domestic)	Demand Summary	School	0.00	0.01	0.03	0.04	0.03	0.05	0.06	0.06	0.05	0.04	0.02	0.03
I	Desert Ridge Academy ^(1,3)	8	Future WRP 7	West of Avenue 39 and Jefferson Street	6900034-1 (Domestic)	Demand Summary	School	See Shadow Hills High School											
I	Shadow Hills North Course ^(1,2)	9	Future WRP 7	Avenue 40 and Madison Street	9095 (Irrigation)	Demand Summary	Golf Course/Housing Community	0.00	0.09	0.26	0.49	0.55	0.57	0.64	0.66	0.44	0.31	0.00	0.06
I	Shadow Hills East Course ^(1,3)	10	Future WRP 7	Avenue 40 and Monroe Street	9076 (Irrigation)	Demand Summary	Golf Course/Housing Community	0.00	0.11	0.33	0.62	0.70	0.72	0.81	0.83	0.56	0.39	0.00	0.08
Phase I Total								0.22	1.27	3.24	5.78	6.28	6.92	7.75	7.85	5.65	3.84	0.38	0.93
I	Shadow Hills South Course - Canal ⁽¹⁾	11	Existing WRP 7	40th Avenue and Madison Street	9074 (Irrigation)	Meter Data	Golf Course/Housing Community	0.00	0.00	0.00	0.03	0.13	0.71	0.93	0.94	0.66	0.36	0.00	0.00
II	C&R Farms and Amazing Coachella Inc.	12	Existing Canal	Lindy Lane and Madison Street	9097 (Irrigation)	Meter Data	Farmland	1.09	1.29	2.35	3.20	1.30	0.00	1.19	1.42	1.52	1.53	1.30	0.53
II	Shadow Lakes	13	Existing Canal	Jackson Street and North Shore Drive	9044 (Irrigation)	Meter Data	Housing Community	0.06	0.10	0.44	0.56	0.41	0.65	0.83	0.81	0.70	0.52	0.32	0.36
II	Indio Municipal Golf Course	14	Existing Canal	East of Avenue 42 and Jackson Street	1728 (Irrigation)	Meter Data	Golf Course	0.06	0.14	0.19	0.27	0.34	0.38	0.38	0.32	0.25	0.31	0.15	0.10
II	Desert Custom Farms	15	Existing Canal	Avenue 42 and Monroe Street	1336 (Irrigation)	Meter Data	Farmland	0.11	0.15	0.17	0.15	0.08	0.32	0.30	0.25	0.38	0.20	0.17	0.08
II	Desert Custom Farms	16	Existing Canal	Sun City Boulevard and Madison Street	1652 (Irrigation)	Meter Data	Farmland	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.16	0.11	0.09	0.06
II	Desert Custom Farms	17	Existing Canal	Sun City Boulevard and Calle Pampas	1666 (Irrigation)	Meter Data	Farmland	0.18	0.25	0.24	0.03	0.02	0.50	0.35	0.70	0.57	0.44	0.50	0.16
II	Desert Custom Farms	18	Existing Canal	Avenue 42 and Monroe Street	9077 (Irrigation)	Meter Data	Farmland	0.06	0.08	0.04	0.03	0.07	0.14	0.03	0.07	0.15	0.24	0.13	0.05
Phase II Total								1.57	2.02	3.43	4.28	2.35	2.69	4.02	4.62	4.39	3.71	2.65	1.35
Phase I + Phase II								1.79	3.29	6.67	10.06	8.63	9.61	11.76	12.47	10.04	7.55	3.03	2.28
Phase I Supplemental Flow from MP 113.2								0.00	0.00	0.00	0.28	0.78	1.42	2.25	2.35	0.15	0.00	0.00	0.00
Phase I + II Supplemental Flow from MP 113.2								0.00	0.00	1.17	4.55	3.13	4.11	6.26	6.97	4.54	2.05	0.00	0.00

- For additional information see CVWD data table.
- Evaluations only utilized CVWD data summary table.
- BBV assumes CVWD data cover both Shadow Hills High School and Desert Ridge Academy demands

Appendix D – Cost Estimate

WRP 7 PHASE 1 NPW IMPROVEMENTS BV Class 4 Opinion of Probable Costs								
Estimate Totals		Description	Amount	Totals	Rate	Percent of Total		
	Labor		724,907			3.12%		
	Material		3,094,549			13.30%		
	Subcontract		7,195,472			30.92%		
	Equipment		182,591			0.78%		
	Other		156,000			0.67%		
	TOTAL DIRECT COST		11,353,519	11,353,519		48.79%		
	SUBCONTRACTOR MARK-UP'S							
	Subcontractor-General Conditions		642,257		8.000 %	2.76%		
	Subcontractor-Overhead		481,693		6.000 %	2.07%		
	Subcontractor-Fee		481,693		6.000 %	2.07%		
	Subcontractor-Bond/Insurance		200,705		2.500 %	0.86%		
	GRAND TOTAL DIRECT COST		1,806,348	13,159,867		7.76%		
	RISK ASSESSMENT MARK-UP'S							
	Construction Contingency	Incl. in CVWD budgeting			15.000 %			
	Market Adjustment Factor	Incl. in CVWD budgeting			10.000 %			
	Escalation to Mid Point March 2025		1,585,764		12.050 %	6.81%		
	TOTAL INCLUDING RISK		1,585,764	14,745,631		6.81%		
	GENERAL REQUIREMENTS							
	General Conditions Management		991,958		5.500 %	4.26%		
	General Conditions Subsistence		360,712		2.000 %	1.55%		
	General Conditions Temp Facilities		180,356		1.000 %	0.78%		
	General Conditions Equipment		90,178		0.500 %	0.39%		
	General Conditions Start-up		270,534		1.500 %	1.16%		
	General Conditions Permits		90,178		0.500 %	0.39%		
	Sales Tax		283,577		8.260 %	1.22%		
	TOTAL INCLUDING GC'S		2,267,493	17,013,124		9.75%		
	CONTRACTOR FEE							
	General & Administrative Costs		1,218,186		6.000 %	5.23%		
	Profit (Fee)		1,396,203		6.000 %	6.00%		
	TOTAL INCLUDING FEE		2,614,389	19,627,513		11.23%		
	INSURANCES & BOND							
	Builders All Risk Insurance		73,336		0.320 %	0.32%		
	General Liability Insurance		46,540		0.200 %	0.20%		
	Payment & Performance Bond		232,701		1.000 %	1.00%		
	TOTAL CONSTRUCTION COST		352,577	19,980,090		1.52%		
	Total		19,980,090	19,980,090				
		Youngs Pipeline		750,000				
		Construction Subtotal		20,730,090				
		CVWD Admin		6,219,027	30.00%			
		TOTAL		26,949,117				

**Response to Comments on Public Review Initial Study/Mitigated Negative
Declaration**

**Water Reclamation Plant No. 7 (WRP 7) Phase 1 Non-Potable Water
Improvements Project**

SCH#: 2023080439

September 2023

Comments and Responses

The 30-day public review period for the Project's Initial Study/Mitigated Negative Declaration (IS/MND) began on August 21, 2023, and ended on September 19, 2023. In conformance with Section 15088(a) of the State CEQA Guidelines, Coachella Valley Water District (CVWD) is required to consider comments received during the review period. One comment letter was received from the California Department of Fish and Wildlife (CDFW) on September 19, 2023 (see next page). Responses to this comment letter are provided following the letter.

Comment Letter A – CDFW



State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
Inland Deserts Region
3602 Inland Empire Boulevard, Suite C-220
Ontario, CA 91764
www.wildlife.ca.gov

GAVIN NEWSOM, Governor
CHARLTON H. BONHAM, Director



Comment Letter A



September 19, 2023
Sent via email

William Patterson
Environmental Supervisor
Coachella Valley Water District
75-515 Hovley Lane East
Palm Desert, CA 92211

Water Reclamation Plant No. 7 Phase 1 Non-Potable Water Improvements (PROJECT)
Mitigated Negative Declaration (MND)
SCH# 2023080439

Dear William Patterson:

The California Department of Fish and Wildlife (CDFW) received a Mitigated Negative Declaration (MND) from the Coachella Valley Water District (CVWD) for the Project pursuant to the California Environmental Quality Act (CEQA) and CEQA guidelines.¹

Thank you for the opportunity to provide comments and recommendations regarding those activities involved in the Project that may affect California fish and wildlife. Likewise, we appreciate the opportunity to provide comments regarding those aspects of the Project that CDFW, by law, may be required to carry out or approve through the exercise of its own regulatory authority under the Fish and Game Code.

CDFW ROLE

CDFW is California's **Trustee Agency** for fish and wildlife resources and holds those resources in trust by statute for all the people of the State. (Fish & G. Code, §§ 711.7, subd. (a) & 1802; Pub. Resources Code, § 21070; CEQA Guidelines § 15386, subd. (a).) CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species. (*Id.*, § 1802.) Similarly, for purposes of CEQA, CDFW is charged by law to provide, as available, biological expertise during public agency environmental review efforts, focusing specifically on Projects and related activities that have the potential to adversely affect fish and wildlife resources.

¹CEQA is codified in the California Public Resources Code in section 21000 et seq. The "CEQA Guidelines" are found in Title 14 of the California Code of Regulations, commencing with section 15000.

Conserving California's Wildlife Since 1870

Comment Letter A – CDFW Continued

William Patterson, Environmental Supervisor
Coachella Valley Water District
September 19, 2023
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CDFW is also submitting comments as a **Responsible Agency** under CEQA. (Pub. Resources Code, § 21069; CEQA Guidelines, § 15381.) CDFW expects that it may need to exercise regulatory authority as provided by the Fish and Game Code. As proposed, for example, the Project may be subject to CDFW's lake and streambed alteration regulatory authority. (Fish & G. Code, § 1600 et seq.) Likewise, to the extent implementation of the Project as proposed may result in "take" as defined by State law of any species protected under the California Endangered Species Act (CESA) (Fish & G. Code, § 2050 et seq.), the Project proponent may seek related take authorization as provided by the Fish and Game Code.

PROJECT DESCRIPTION SUMMARY

Proponent: Coachella Valley Water District

Objective: The Project proposes improvements to the existing tertiary treatment plant processes and an existing canal pump station at WRP 7. The Project would reduce the usage of non-potable water (NPW) from the Coachella Canal by generating additional recycled water (RW). The WRP 7 Tertiary Treatment Improvements and MP 113.2 Pump Station Rehabilitation Project includes the following upgrades:

- Retrofit the existing dual media filter basins with cloth disk filters to improve tertiary treatment to match the rated capacity of the plant within the same footprint.
- Construct a low-pressure ultraviolet (UV) system with 12 lamps and 2 channels (100 ml/cm²) to match the rated capacity of the plant in accordance with Title 22 regulations, in an enclosed 44-foot by 61-foot building and with an electrical building to substitute use of chlorine gas.
- Abandon the existing chlorine gas system and maintain the existing chlorine contact basin for potential future use by operations for effluent/backwash holding.
- Upgrade of the existing systems associated with the tertiary process includes the in-kind replacement of the following:
 - Secondary effluent flocculation system.
 - Tertiary process chemical feed systems, including sodium hypochlorite storage in fiber reinforced plastic-coated steel tanks. Includes replacement of existing feed pumps for additional capacity due to increased tertiary flows and feed piping.
 - In-plant secondary effluent, and NPW delivery pumping systems capacity increase for a 5.5 MGD system (2.5 MGD existing).
 - Tertiary Process electrical motor control centers (MCCs). A new electrical control building would house existing and new components.

CVWD is also replacing the aged infrastructure at canal water delivery pump station MP 113.2 as part of this Project. To maintain the current capacity of the pump station, the two existing pumps and MCC's are being replaced with pumps that are more efficient and drives requiring less horsepower. The motors would be approximately 10 percent more efficient, and horsepower (HP) would be reduced from 150-HP to 100-HP per pump. A third pump is being added to allow operations to perform routine maintenance

Comment Letter A – CDFW Continued

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Page 3

while maintaining facility capacity in a typical two-duty and one-standby configuration. All improvements to the pump station are within the existing MP 113.2 site located on the southwest corner of the Madison Street and Avenue 40 intersection.

The Proposed Project would also install approximately 2,500 linear feet of NPW pipeline to connect Young's Farmland to the existing NPW pipeline on Avenue 38. Young's Farmland currently uses groundwater for irrigation. The Project would convert the primary irrigation source from groundwater to recycled water. The Young's Farmland NPW pipeline would be installed within the right-of-way of Jefferson Street and on Young's Farmland property (APN 691-060-010, 691-050-010, and 691-050-012).

Location: The proposed Project area includes the northwest portion of CVWD's Water Reclamation Plant (WRP) 7, located south of Avenue 38 along Madison Street in the City of Indio in Riverside County, California. The Mile Post (MP) 113.2 pump station is located on the southwest corner of the Madison Street and Avenue 40 intersection. The proposed pipeline would be located in the existing roadway of Jefferson Street and on private property north of Young Way. The Project Area includes seven parcels: APNs 691-100-029 and 691-100-030, which are located south of Avenue 38, north of Lindy Lane, west of Madison Street, and east of Burr Street; APN 691-180-006, which is south of Avenue 40 and west of Madison Street, adjacent to the canal; APN 691-050-021, which is at the western end of Young's Way; and APNs 691-060-010, 691-050-010, and 691-050-012, the Young's Farmland property.

Timeframe: The MND indicates that construction would begin in June 2024, last approximately 18 months, reach substantial completion in 2025, and that the new systems would be online in late 2025.

COMMENTS AND RECOMMENDATIONS

CDFW has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species (i.e., biological resources). CDFW offers the comments and recommendations below to assist the CVWD in adequately identifying and/or mitigating the Project's significant, or potentially significant, direct and indirect impacts on fish and wildlife (biological) resources. CDFW's comments and recommendations on the MND are explained in greater detail below and summarized here. CDFW is concerned that the MND does not adequately identify or mitigate the Project's significant, or potentially significant, impacts to biological resources.

A-1

Mitigation Measures

CEQA requires that an MND include mitigation measures to avoid or reduce significant impacts. CDFW is concerned that the mitigation measures proposed in the MND are not adequate to avoid or reduce impacts to biological resources to below a level of

Comment Letter A – CDFW Continued

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significance. To support the CVWD in ensuring that Project impacts to biological resources are reduced to less than significant, CDFW recommends revising the mitigation measures for nesting birds and nighttime work avoidance, replacing and revising mitigation measures for bats, and replacing measures for burrowing owl.

A-1
(Cont.)

1) Nesting Birds

It is the Project proponent’s responsibility to comply with all applicable laws related to nesting birds and birds of prey. Fish and Game Code sections 3503, 3503.5, and 3513 afford protective measures as follows: section 3503 states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by Fish and Game Code or any regulation made pursuant thereto. Fish and Game Code section 3503.5 makes it unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds-of-prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by Fish and Game Code or any regulation adopted pursuant thereto. Fish and Game Code section 3513 makes it unlawful to take or possess any migratory nongame bird except as provided by rules and regulations adopted by the Secretary of the Interior under provisions of the Migratory Bird Treaty Act of 1918, as amended (16 U.S.C. § 703 et seq.).

Page 4-31 of the MND indicates that “the Study Area has the potential to support various avian species and raptor nests due to the presence of existing structures, shrubs, and trees onsite. Active bird nests were identified within the Project Area during the biological survey including an active red-tailed hawk nest located in a communications tower and greater than 100 active cliff swallow nests located underneath an overhang of a concrete building.” The MND includes Mitigation Measure BIO-5 for nesting birds, which indicates that “if activities with the potential to disrupt nesting birds are scheduled to occur during the bird breeding season (January 1 through July 31 for raptors and March 1 through September 15 for songbirds), a pre-construction nesting bird survey shall be conducted by a qualified biologist within the project area and adjacent areas where project activities have the potential to cause nest failure.” Conducting work outside the peak breeding season is an important avoidance and minimization measure. However, CDFW also recommends the completion of nesting bird surveys *regardless* of the time of year to ensure that impacts are avoided or reduced to a level that is less than significant. The timing of the nesting season varies greatly depending on several factors, such as bird species, weather conditions in any given year, and long-term climate changes (e.g., drought, warming, etc.). In response to warming, birds have been reported to breed earlier, thereby reducing temperatures that nests are exposed to during breeding and tracking shifts in availability of resources

A-2

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(Socolar et al., 2017²). CDFW staff have observed that climate change conditions may result in the nesting bird season occurring earlier and later in the year than historical nesting season dates. CDFW recommends that disturbance of occupied nests of migratory birds and raptors within the Project site and surrounding area be avoided **any time birds are nesting on-site**. CDFW considers the Mitigation Measure BIO-5 to be insufficient in scope and timing to reduce impacts to nesting birds to less than significant. CDFW recommends the CVWD revise Mitigation Measure BIO-5, with additions in **bold** and removals in ~~strikethrough~~:

Mitigation Measure BIO-5: Nesting Birds

Construction activities of projects shall be conducted **outside of the peak breeding** during the ~~non-breeding~~ season for birds (September 16 through December 31). ~~This will avoid violations of the MBTA and CFGC Sections 3503, 3503.5 and 3513.~~ **Regardless of the time of year, nesting bird surveys shall be performed by a qualified avian biologist no more than 3 days prior to vegetation removal or ground-disturbing activities. Pre-construction surveys shall focus on both direct and indirect evidence of nesting, including nest locations and nesting behavior. The qualified avian biologist will make every effort to avoid potential nest predation as a result of survey and monitoring efforts. If active nests are found during the pre-construction nesting bird surveys, a qualified biologist shall establish an appropriate nest buffer to be marked on the ground. Nest buffers are species specific and shall be at least 300 feet for passerines and 500 feet for raptors. A smaller or larger buffer may be determined by the qualified biologist familiar with the nesting phenology of the nesting species and based on nest and buffer monitoring results. Established buffers shall remain on site until a qualified biologist determines the young have fledged or the nest is no longer active. Active nests and adequacy of the established buffer distance shall be monitored daily by the qualified biologist until the qualified biologist has determined the young have fledged or the Project has been completed. The qualified biologist has the authority to stop work if nesting pairs exhibit signs of disturbance. If activities with the potential to disrupt nesting birds are scheduled to occur during the bird breeding season (January 1 through July 31 for raptors and March 1 through September 15 for songbirds), a pre-construction nesting bird survey shall be conducted by a qualified biologist within the project area and adjacent areas where project activities have the potential to cause nest failure. If no nesting birds are observed during the survey, implementation of project activities may begin. If nesting birds (including**

A-2
(Cont.)

² Socolar JB, Epanchin PN, Beissinger SR and Tingley MW (2017). Phenological shifts conserve thermal niches. Proceedings of the National Academy of Sciences 114(49): 12976-12981.

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~~nesting raptors) are found to be present, then avoidance or minimization measures shall be undertaken in consultation with CDFW. Measures shall include establishment of an avoidance buffer until nesting has been completed. The width of the buffer will be determined by the biologist in consultation with CDFW. Typically, this is a minimum of 300 feet from the nest site in all directions (500 feet is typically recommended by CDFW for raptors), until the juveniles have fledged and there has been no evidence of a second attempt at nesting.~~

A-2
(Cont.)

Pursuant to the CEQA Guidelines, section 15097(f), CDFW has prepared a draft mitigation monitoring and reporting program (MMRP) for revised MM BIO-5, MM BIO-PS-3 and MM BIO-PS-4 and recommended replacement of MM BIO-3, MM BIO-PS-1, MM BIO-PS-2, and MM BIO-PS-5 discussed below (see Attachment 1).

A-3

2) Burrowing Owl

Burrowing owl (*Athene cunicularia*) is a California Species of Special Concern. Take of individual burrowing owls and their nests is defined by Fish and Game Code section 86, and prohibited by sections 3503, 3503.5, and 3513. Fish and Game Code section 3513 makes it unlawful to take or possess any migratory nongame bird except as provided by rules and regulations adopted by the Secretary of the Interior under provisions of the Migratory Bird Treaty Act of 1918, as amended (16 U.S.C. § 703 et seq.). Take is defined in Fish and Game Code section 86 as “hunt, pursue, catch, capture or kill, or attempt to hunt, pursue, catch, capture or kill.”

Page 4-31 of the MND indicates that “one burrowing owl was observed within the Project Area at a burrow located on the wall of one of the water basins (Figure 6). Burrowing owl sign in the form of whitewash was present at the burrow entrance. Additionally, the Project Area contains suitable habitat, and multiple suitable size burrows were observed during the biological survey. The areas in the vicinity could also provide suitable foraging habitat as well as breeding habitat for burrowing owl.” Although the MND includes Mitigation Measures BIO-3 and BIO-PS-1 for burrowing owl, CDFW considers these measures to be inadequate in scope and timing to reduce impacts to less than significant. CDFW recommends that CWWD replace Mitigation Measures BIO-3 and BIO-PS-1, with the following mitigation measure:

A-4

Mitigation Measure BIO-3: Burrowing Owl Avoidance

Suitable burrowing owl habitat, suitable burrows, and a burrowing owl have been confirmed on the site; therefore, focused burrowing owl surveys shall be conducted by a qualified biologist according to the *Staff Report on Burrowing Owl Mitigation* (Department of Fish and Game, March 2012 or most recent version). If burrowing owls are detected during the focused surveys, the qualified biologist and Project proponent shall prepare a Burrowing Owl Plan that shall be submitted to CDFW for review and approval prior to commencing Project

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activities. The Burrowing Owl Plan shall describe proposed avoidance, minimization, mitigation, and monitoring actions. The Burrowing Owl Plan shall include the number and location of occupied burrow sites, acres of burrowing owl habitat that will be impacted, details of site monitoring, and details on proposed buffers and other avoidance measures if avoidance is proposed. If impacts to occupied burrowing owl habitat or burrow cannot be avoided, the Burrowing Owl Plan shall also describe minimization and relocation actions that will be implemented. Proposed implementation of burrow exclusion and closure should only be considered as a last resort, after all other options have been evaluated as exclusion is not in itself an avoidance, minimization, or mitigation method and has the possibility to result in take. If impacts to occupied burrows cannot be avoided, information shall be provided regarding adjacent or nearby suitable habitat available to owls along with proposed relocation actions. The Project proponent shall implement the Burrowing Owl Plan following CDFW and USFWS review and approval.

A-4
(Cont.)

Preconstruction burrowing owl surveys shall be conducted no less than 14 days prior to the start of Project-related activities and within 24 hours prior to ground disturbance, in accordance with the *Staff Report on Burrowing Owl Mitigation* (2012 or most recent version). Preconstruction surveys should be performed by a qualified biologist following the recommendations and guidelines provided in the *Staff Report on Burrowing Owl Mitigation*. If the preconstruction surveys confirm occupied burrowing owl habitat, Project activities shall be immediately halted. The qualified biologist shall coordinate with CDFW and prepare a Burrowing Owl Plan that shall be submitted to CDFW and USFWS for review and approval prior to commencing Project activities.

3) Bats

Page 4-33 of the MND indicates that the "Project Area and adjacent area has the potential to support two special-status bat species due to the presence of existing structures and tree species (i.e., palm trees with intact thatch). These bat species include western mastiff bat and western yellow bat. Western mastiff bat is primarily a cliff-dwelling species; however, it can also be found roosting in crevices such as those found on man-made structures such as buildings. Western yellow bat is a foliage-roosting species that is known to roost in native and non-native palm trees and other broadleaf trees." The MND includes Mitigation Measures BIO-PS-2 (Pre-construction Bat Surveys) and BIO-PS-5 (Tree Avoidance and Removal Process). While these mitigation measures include important components to avoid and minimization impacts to bats, they lack protection for bats using the Project Area and adjacent areas as hibernacula (where one or more bats hibernate in the winter), and CDFW considers these measures to be inadequate in scope and timing to reduce impacts to less than

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significant. CDFW recommends replacing Mitigation Measure BIO-PS-2 with the following mitigation measure:

Mitigation Measure BIO-PS-2: Surveys for Daytime, Nighttime, Wintering (Hibernacula), and Maternity Roosting Sites for Bats

Prior to the initiation of Project activities within suitable bat roosting habitat, the Project proponent shall retain a qualified biologist to conduct focused surveys to determine presence of daytime, nighttime, wintering (hibernacula), and maternity roost sites. Two spring surveys (April through June) and two winter surveys (November through January) shall be performed by qualified biologists. Surveys shall be conducted during favorable weather conditions only. Each survey shall consist of one dusk emergence survey (start one hour before sunset and last for three hours), followed by one pre-dawn re-entry survey (start one hour before sunrise and last for two hours), and one daytime visual inspection of all potential roosting habitat on the Project site. Surveys shall be conducted within one 24-hour period. Visual inspections shall focus on the identification of bat sign (i.e., individuals, guano, urine staining, corpses, feeding remains, scratch marks and bats squeaking and chattering). Bat detectors, bat call analysis, and visual observation shall be used during all dusk emergence and pre-dawn re-entry surveys.

If active hibernacula or maternity roosts are identified in the work area or 500 feet extending from the work area during preconstruction surveys, for maternity roosts, Project construction will only occur between October 1 and February 28, outside of the maternity roosting season when young bats are present but are not yet ready to fly out of the roost. Maternity roosts shall not be evicted, excluded, removed, or disturbed. A minimum 500-foot no-work buffer shall be provided around wintering roosts (hibernacula). The buffer shall not be reduced. Project-related construction and activities shall not occur within 500 feet of or directly under or adjacent to hibernacula. Buffers shall be left in place until the end of Project construction and activities or until a qualified bat biologist determines that the hibernacula are no longer active. Project-related construction and activities shall not occur between 30 minutes before sunset and 30 minutes after sunrise. Hibernacula roosts shall not be evicted, excluded, removed, or disturbed. If avoidance of a hibernacula is not feasible, the Project Biologist will prepare a relocation plan to remove the hibernacula and provide for construction of an alternative bat roost outside of the work area. A bat roost relocation plan shall be submitted for CDFW review and approval prior to construction activities. The qualified biologist will implement the relocation plan and new roost sites shall be in place before the commencement of any ground-disturbing activities that will occur within 500 feet of the hibernacula. New roost sites shall be in place prior to the initiation of Project-related activities to allow enough time for bats to

A-5
(Cont.)

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relocate. Removal of roosts will be guided by accepted exclusion and deterrent techniques. The Project proponent shall compensate no less than 2:1 for permanent impacts to roosting habitat.

A-5
(Cont.)

Additionally, to minimize impacts of tree removal, relocation, or maintenance work on bats hibernating or entering torpor over different periods during the winter, CDFW recommends that Mitigation Measure BIO-PS-5 (Tree Avoidance and Removal Process) is replaced with following measure:

Mitigation Measure BIO-PS-5: Avoidance of Bats during Tree Removal

Tree removal work with the potential to house roosting bats shall be performed between September 15 and October 31 to minimize direct impacts to roosting bats. This time period is after young are volant (flying) but before expected onset of torpor (wintering inactivity). Tree removal, relocation, or maintenance work may also be conducted between February 15 and March 31, following winter torpor and prior to the start of the maternity season. No tree removals, relocations, or maintenance shall occur during the hibernation season, which typically begins in November or December (depending on weather conditions) and continues through mid-February, due to the high potential for mortality of hibernating bats. Depending on weather conditions and the best professional judgement of a qualified bat biologist approved by CDFW, tree removal, relocation, or maintenance work may be performed in November if the forecasted nighttime low temperatures on the evening of removal and the subsequent four evenings do not drop below 45°F. In November, if weather is cold (i.e., forecasted nighttime low temperatures reach 45°F or less for that evening and the next four evenings), then no tree removals, relocations, or maintenance shall be performed. All tree removals shall require a two-step removal process and the involvement of a CDFW-approved qualified bat biologist to ensure that no roosting bats are killed during this activity. The following two-step tree removal process shall be implemented over two consecutive days: on Day 1, live palm fronds located above the frond skirt, and as identified by a qualified bat biologist, will be removed. On Day 2, the remainder of the tree may be removed without supervision by a qualified bat biologist.

A-6

Additionally, to address impacts to bats using mud nests constructed by cliff swallows, the MND includes Mitigation Measure BIO-PS-4 (Cliff Swallow Nest Avoidance). While this measure includes important avoidance and minimization measures to protect bats using mud nests, CDFW recommends that additional avoidance and minimizations measures are included to support the Project proponent in reducing impacts to a level that is less than significant. CDFW recommends that Mitigation Measure BIO-PS-4 is revised with the following additions in **bold**:

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Mitigation Measure BIO-PS-4: Cliff Swallow Nest Avoidance

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Some bat species may roost in cliff swallow nests at any time of year. The removal of cliff swallow nests shall be avoided to the greatest extent feasible. If cliff swallow nests must be removed, **prior to removal they should first be observed to confirm that cliff swallows are not using the nests in accordance with Mitigation Measure BIO-5. To avoid impacts to bats, each nest should be inspected by a CDFW-approved bat biologist experienced in inspecting mud nests, with a borescope inspection camera or similar device, which requires a Scientific Collecting Permit. If the qualified biologist, while inspecting mud nests, detects bats using mud nests as roosting habitat, the mud nests will not be disturbed while bats are present. Mud nests used by bats may be inspected by a qualified bat biologist and removed at night (i.e., beginning approximately 1.5 hours after sunset to avoid disrupting the emergence) when bats typically leave the roost to forage. Only the qualified biologist may remove mud nests.** ~~be removed by, or under the direct supervision of a CDFW-approved bat biologist with a Scientific Collecting Permit from CDFW to handle bats, and in such a way that the nest is kept intact and not dropped to the ground until it can be inspected by the biologist.~~ Swallow nest removal shall follow the guidance provided by the California Bat Working Group (CBWG) Bats in Swallow Nests resource (CBWG 2022). **Specific avoidance and minimization measure shall include, but are not limited to, performing mud-nest inspections and removals between September 15 and October 31, after young are volant but before expected onset of seasonal torpor; removing previously occupied nests only if that night’s weather conditions exclude severe winds, precipitation, or nighttime temperatures below 45 degrees Fahrenheit; and avoiding removals during the hibernation season, which typically begins in November or December depending on weather conditions and continues through mid-February.**

A-7
(Cont.)

4) Nighttime Work Avoidance

Mitigation Measure BIO-PS-3 (Nighttime Work Avoidance) in the MND infers that Project construction work may be carried out at night. Mitigation Measure BIO-PS-3 includes important components to avoid and minimize impacts on bats and other wildlife; however, CDFW considers these measures to be insufficient in scope and timing to reduce impacts to less than significant. CDFW recommends revising Mitigation Measure BIO-PS-3 with the following additions in **bold**:

Mitigation Measure BIO-PS-3: Nighttime Work Avoidance

Avoid night work at all structures where night roosting has been identified. If avoiding night work is impossible, further minimization measures such as those listed below will be necessary.

- a) Night lighting shall be used only on areas actively being worked on and focused on the direct area of work.

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- b) Airspace access to and from the roost features of the structure shall not be obstructed except in direct work areas.
- c) To the extent practicable, internal combustion equipment such as generators and vehicles are not to be parked or operated beneath or adjacent to the potential roosting structures unless they are required for Project-related work on that structure.
- d) Construction personnel shall not be present in non-active areas beneath the structures or vegetation designated as bat roosting habitat.
- e) **Project construction activities shall avoid the period of 1.5 hours prior to dawn and the period of 1.5 hours after dusk when bats and many nocturnal and crepuscular wildlife species are most active.**

A-8
(Cont.)

ENVIRONMENTAL DATA

CEQA requires that information developed in environmental impact reports and negative declarations be incorporated into a database which may be used to make subsequent or supplemental environmental determinations. (Pub. Resources Code, § 21003, subd. (e).) Accordingly, please report any special status species and natural communities detected during Project surveys to the California Natural Diversity Database (CNDDDB). The CNDDDB field survey form can be filled out and submitted online at the following link: <https://wildlife.ca.gov/Data/CNDDDB/Submitting-Data>. The types of information reported to CNDDDB can be found at the following link: <https://www.wildlife.ca.gov/Data/CNDDDB/Plants-and-Animals>.

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ENVIRONMENTAL DOCUMENT FILING FEES

The Project, as proposed, would have an impact on fish and/or wildlife, and assessment of environmental document filing fees is necessary. Fees are payable upon filing of the Notice of Determination by the Lead Agency and serve to help defray the cost of environmental review by CDFW. Payment of the environmental document filing fee is required in order for the underlying Project approval to be operative, vested, and final. (Cal. Code Regs, tit. 14, § 753.5; Fish & G. Code, § 711.4; Pub. Resources Code, § 21089.)

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CONCLUSIONS

CDFW appreciates the opportunity to comment on the MND to assist the CVWD in identifying and mitigating Project impacts to biological resources. CDFW concludes that the MND does not adequately identify or mitigate the Project's significant, or potentially significant, impacts to biological resources. CDFW also recommends that revised mitigation measures as described in this letter be added to a revised MND.

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CDFW personnel are available for consultation regarding biological resources and strategies to avoid and minimize impacts. Questions regarding this letter or further coordination should be directed to Jacob Skaggs, Environmental Scientist, at jacob.skaggs@wildlife.ca.gov.

A-11
(Cont.)

Sincerely,

DocuSigned by:

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Kim Freeburn
Environmental Program Manager

Attachment 1: MMRP for CDFW-Proposed Mitigation Measures

ec:

Heather Brashear, Senior Environmental Scientist (Supervisor), CDFW
Heather.Brashear@Wildlife.ca.gov

Office of Planning and Research, State Clearinghouse, Sacramento
state.clearinghouse@opr.ca.gov

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ATTACHMENT 1: MITIGATION MONITORING AND REPORTING PROGRAM (MMRP)

Mitigation Measures	Timing and Methods	Responsible Parties
<p>Mitigation Measure BIO-5: Nesting Birds</p> <p>Construction activities of projects shall be conducted outside of the peak breeding season for birds (September 16 through December 31). Regardless of the time of year, nesting bird surveys shall be performed by a qualified avian biologist no more than 3 days prior to vegetation removal or ground-disturbing activities. Pre-construction surveys shall focus on both direct and indirect evidence of nesting, including nest locations and nesting behavior. The qualified avian biologist will make every effort to avoid potential nest predation as a result of survey and monitoring efforts. If active nests are found during the pre-construction nesting bird surveys, a qualified biologist shall establish an appropriate nest buffer to be marked on the ground. Nest buffers are species specific and shall be at least 300 feet for passerines and 500 feet for raptors. A smaller or larger buffer may be determined by the qualified biologist familiar with the nesting phenology of the nesting species and based on nest and buffer monitoring results. Established buffers shall remain on site until a qualified biologist determines the young have fledged or the nest is no longer active. Active nests and adequacy of the established buffer distance shall be monitored daily by the qualified biologist until the qualified biologist has determined the young have fledged or the Project has been completed. The qualified biologist has the authority to stop work if nesting pairs exhibit signs of disturbance.</p>	<p>Timing: No more than 3 days prior to vegetation removal or ground-disturbing activities.</p> <p>Methods: See Mitigation Measure</p>	<p>Implementation: Coachella Valley Water District</p> <p>Monitoring and Reporting: Coachella Valley Water District</p>
<p>Mitigation Measure BIO-3: Burrowing Owl Avoidance</p> <p>Suitable burrowing owl habitat, suitable burrows, and a burrowing owl have been confirmed on the site; therefore, focused burrowing owl surveys shall be conducted by a qualified biologist according to the <i>Staff Report on Burrowing Owl Mitigation</i> (Department of Fish and Game, March 2012 or most recent version). If burrowing owls are detected during the focused surveys, the qualified biologist and</p>	<p>Timing: Focused surveys: Prior to vegetation removal or ground-disturbing activities. Pre-construction surveys: No less than 14 days prior to start of Project-</p>	<p>Implementation: Coachella Valley Water District</p> <p>Monitoring and Reporting: Coachella Valley Water District</p>

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<p>Project proponent shall prepare a Burrowing Owl Plan that shall be submitted to CDFW for review and approval prior to commencing Project activities. The Burrowing Owl Plan shall describe proposed avoidance, minimization, mitigation, and monitoring actions. The Burrowing Owl Plan shall include the number and location of occupied burrow sites, acres of burrowing owl habitat that will be impacted, details of site monitoring, and details on proposed buffers and other avoidance measures if avoidance is proposed. If impacts to occupied burrowing owl habitat or burrow cannot be avoided, the Burrowing Owl Plan shall also describe minimization and relocation actions that will be implemented. Proposed implementation of burrow exclusion and closure should only be considered as a last resort, after all other options have been evaluated as exclusion is not in itself an avoidance, minimization, or mitigation method and has the possibility to result in take. If impacts to occupied burrows cannot be avoided, information shall be provided regarding adjacent or nearby suitable habitat available to owls along with proposed relocation actions. The Project proponent shall implement the Burrowing Owl Plan following CDFW and USFWS review and approval.</p> <p>Preconstruction burrowing owl surveys shall be conducted no less than 14 days prior to the start of Project-related activities and within 24 hours prior to ground disturbance, in accordance with the <i>Staff Report on Burrowing Owl Mitigation</i> (2012 or most recent version). Preconstruction surveys should be performed by a qualified biologist following the recommendations and guidelines provided in the <i>Staff Report on Burrowing Owl Mitigation</i>. If the preconstruction surveys confirm occupied burrowing owl habitat, Project activities shall be immediately halted. The qualified biologist shall coordinate with CDFW and prepare a Burrowing Owl Plan that shall be submitted to CDFW and USFWS for review and approval prior to commencing Project activities.</p>	<p>related activities and within 24 hours prior to ground disturbance.</p> <p>Methods: See Mitigation Measure</p>	
<p>Mitigation Measure BIO-PS-2: Surveys for Daytime, Nighttime, Wintering (Hibernacula), and Maternity Roosting Sites for Bats</p> <p>Prior to the initiation of Project activities within suitable bat roosting habitat, the Project proponent shall retain a qualified biologist to conduct focused surveys to determine presence of daytime, nighttime, wintering (hibernacula), and maternity roost sites.</p>	<p>Timing: Prior to initiation of Project activities</p> <p>Methods: See Mitigation Measure</p>	<p>Implementation: Coachella Valley Water District</p> <p>Monitoring and Reporting: Coachella Valley Water District</p>

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Two spring surveys (April through June) and two winter surveys (November through January) shall be performed by qualified biologists. Surveys shall be conducted during favorable weather conditions only. Each survey shall consist of one dusk emergence survey (start one hour before sunset and last for three hours), followed by one pre-dawn re-entry survey (start one hour before sunrise and last for two hours), and one daytime visual inspection of all potential roosting habitat on the Project site. Surveys shall be conducted within one 24-hour period. Visual inspections shall focus on the identification of bat sign (i.e., individuals, guano, urine staining, corpses, feeding remains, scratch marks and bats squeaking and chattering). Bat detectors, bat call analysis, and visual observation shall be used during all dusk emergence and pre-dawn re-entry surveys.

If active hibernacula or maternity roosts are identified in the work area or 500 feet extending from the work area during preconstruction surveys, for maternity roosts, Project construction will only occur between October 1 and February 28, outside of the maternity roosting season when young bats are present but are not yet ready to fly out of the roost. Maternity roosts shall not be evicted, excluded, removed, or disturbed. A minimum 500-foot no-work buffer shall be provided around wintering roosts (hibernacula). The buffer shall not be reduced. Project-related construction and activities shall not occur within 500 feet of or directly under or adjacent to hibernacula. Buffers shall be left in place until the end of Project construction and activities or until a qualified bat biologist determines that the hibernacula are no longer active. Project-related construction and activities shall not occur between 30 minutes before sunset and 30 minutes after sunrise. Hibernacula roosts shall not be evicted, excluded, removed, or disturbed. If avoidance of a hibernacula is not feasible, the Project Biologist will prepare a relocation plan to remove the hibernacula and provide for construction of an alternative bat roost outside of the work area. A bat roost relocation plan shall be submitted for CDFW review and approval prior to construction activities. The qualified biologist will implement the relocation plan and new roost sites shall be in place before the commencement of any ground-disturbing activities that will occur within 500 feet of the hibernacula. New roost sites shall be in place prior to the initiation of Project-related activities to allow enough time for bats to relocate. Removal of roosts will be guided by accepted

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<p>exclusion and deterrent techniques. The Project proponent shall compensate no less than 2:1 for permanent impacts to roosting habitat.</p>		
<p>Mitigation Measure BIO-PS-5: Avoidance of Bats during Tree Removal</p> <p>Tree removal work with the potential to house roosting bats shall be performed between September 15 and October 31 to minimize direct impacts to roosting bats. This time period is after young are volant (flying) but before expected onset of torpor (wintering inactivity). Tree removal, relocation, or maintenance work may also be conducted between February 15 and March 31, following winter torpor and prior to the start of the maternity season. No tree removals, relocations, or maintenance shall occur during the hibernation season, which typically begins in November or December (depending on weather conditions) and continues through mid-February, due to the high potential for mortality of hibernating bats. Depending on weather conditions and the best professional judgement of a qualified bat biologist approved by CDFW, tree removal, relocation, or maintenance work may be performed in November if the forecasted nighttime low temperatures on the evening of removal and the subsequent four evenings do not drop below 45 F. In November, if weather is cold (i.e., forecasted nighttime low temperatures reach 45 F or less for that evening and the next four evenings), then no tree removals, relocations, or maintenance shall be performed. All tree removals shall require a two-step removal process and the involvement of a CDFW-approved qualified bat biologist to ensure that no roosting bats are killed during this activity. The following two-step tree removal process shall be implemented over two consecutive days: on Day 1, live palm fronds located above the frond skirt, and as identified by a qualified bat biologist, will be removed. On Day 2, the remainder of the tree may be removed without supervision by a qualified bat biologist.</p>	<p>Timing: During Project construction activities</p> <p>Methods: See Mitigation Measure</p>	<p>Implementation: Coachella Valley Water District</p> <p>Monitoring and Reporting: Coachella Valley Water District</p>
<p>Mitigation Measure BIO-PS-4: Cliff Swallow Nest Avoidance</p> <p>Some bat species may roost in cliff swallow nests at any time of year. The removal of cliff swallow nests</p>	<p>Timing: During Project construction activities</p>	<p>Implementation: Coachella Valley Water District</p>

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<p>shall be avoided to the greatest extent feasible. If cliff swallow nests must be removed, prior to removal they should be first be observed to confirm that cliff swallows are not using the nests in accordance with Mitigation Measure BIO-5. To avoid impacts to bats, each nest should be inspected by a CDFW-approved bat biologist experienced in inspecting mud nests, with a borescope inspection camera or similar device, which requires a Scientific Collecting Permit. If the qualified biologist, while inspecting mud nests, detects bats using mud nests as roosting habitat, the mud nests will not be disturbed while bats are present. Mud nests used by bats may be inspected by a qualified bat biologist and removed at night (i.e., beginning approximately 1.5 hours after sunset to avoid disrupting the emergence) when bats typically leave the roost to forage. Only the qualified biologist may remove mud nests. Swallow nest removal shall follow the guidance provided by the California Bat Working Group (CBWG) Bats in Swallow Nests resource (CBWG 2022). Specific avoidance and minimization measure shall include, but are not limited to, performing mud-nest inspections and removals between September 15 and October 31, after young are volant but before expected onset of seasonal torpor; removing previously occupied nests only if that night's weather conditions exclude severe winds, precipitation, or nighttime temperatures below 45 degrees Fahrenheit; and avoiding removals during the hibernation seasons, which typically begins in November or December depending on weather conditions and continues through mid-February.</p>	<p>Methods: See Mitigation Measure</p>	<p>Monitoring and Reporting: Coachella Valley Water District</p>
<p>Mitigation Measure BIO-PS-3: Nighttime Work Avoidance</p> <p>Avoid night work at all structures where night roosting has been identified. If avoiding night work is impossible, further minimization measures such as those listed below will be necessary.</p> <ul style="list-style-type: none"> a) Night lighting shall be used only on areas actively being worked on and focused on the direct area of work. b) Airspace access to and from the roost features of the structure shall not be obstructed except in direct work areas. c) To the extent practicable, internal combustion equipment such as generators and vehicles 	<p>Timing: During Project construction activities</p> <p>Methods: See Mitigation Measure</p>	<p>Implementation: Coachella Valley Water District</p> <p>Monitoring and Reporting: Coachella Valley Water District</p>

Comment Letter A – CDFW Continued

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Coachella Valley Water District
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<p>are not to be parked or operated beneath or adjacent to the potential roosting structures unless they are required for Project-related work on that structure.</p> <p>d) Construction personnel shall not be present in non-active areas beneath the structures or vegetation designated as bat roosting habitat.</p> <p>e) Project construction activities shall avoid the period of 1.5 hours prior to dawn and the period of 1.5 hours after dusk when bats and many nocturnal and crepuscular wildlife species are most active.</p>		
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Responses to Comment Letter A

Response to Comment A-1:

This comment summarizes CDFW's jurisdiction and concern that the Project's mitigation measures are not adequate to avoid or reduce impacts to biological resources to a less than significant level. CDFW notes their comments and recommendations are explained in greater detail in later comments. Any revisions to the Project's mitigation measures will be addressed in the subsequent responses. No further response is required.

Response to Comment A-2:

This comment describes Fish and Game Code sections 3503, 3503.5, and 3515. Additionally, CDFW summarizes Mitigation Measure BIO-5 on page 4-31 of the IS/MND. CDFW recommends the completion of nesting bird surveys regardless of the time of year as the timing of the nesting season has varied in response to long-term climate change conditions (warming). Existing Mitigation Measure BIO-5 requires the completion of nesting bird surveys when Project activities occur between January 1 and September 15. This timeframe is within the recognized breeding season for bird species protected by Fish and Game Code sections 3503, 3503.5, and 3515 and the Migratory Bird Treaty Act (MBTA). CVWD evaluates mitigation measures on a project-by-project basis and considers the measure to be sufficient as written for this project. If an active nest is found during construction activities outside of this timeframe (January 1 and September 15) or during other pre-construction and/or biological surveys (i.e., pre-construction burrowing owl survey) conducted for the Project, CVWD will notify CDFW and appropriate mitigation/avoidance measures will be implemented. No changes to the IS/MND are required in response to this comment.

Response to Comment A-3:

CDFW states they prepared a draft mitigation monitoring and reporting program (MMRP) including revisions or replacement language for multiple of the Project's mitigation measures. The draft MMRP is provided as Attachment 1 of their letter. The proposed revisions are addressed throughout the subsequent responses. No further response is required.

Response to Comment A-4:

This comment summarizes Fish and Game Code sections 86, 3503, 3503.5, and 3513. Additionally, CDFW considers Mitigation Measure BIO-3 and BIO-PS-1 inadequate in scope and timing to reduce impacts to burrowing owl (BUOW) to less than significant. CDFW recommends focused burrowing owl surveys and a Burrowing Owl Plan if burrowing owls are detected during the focused surveys. BUOW is a covered species under the Coachella Valley Multiple Species Habitat Conservation Plan (CVMSHCP) and is also subject to protection under the Migratory Bird Treaty Act (MBTA) and the applicable Fish and Game Code. Although take of BUOW will be avoided by CVWD, incidental take is authorized under the CVMSHCP for non-breeding BUOW. CDFW defines nesting season as February 1 to August 31 consistent with the CDFW *Staff Report on Burrowing Owl Mitigation* (CDFW 2012). The Project Area is outside of a CVMSHCP Conservation Area, where CVWD's CVMHSHCP-approved Operations and Maintenance Manual would apply. The text for existing Mitigation Measure BIO-PS-1 (Burrowing Owl Presence/Absence) on pages 3 and 4-39 of the IS/MND has been revised as provided below. Changes in text are identified by ~~strikeout~~ where text is removed and by underline where text is added. The revised Mitigation Measure BIO-PS-1 (Burrowing Owl Presence/Absence) will state:

If, during the pre-construction Burrowing Owl Surveys, burrows onsite are determined to be unoccupied, construction may proceed without the preparation of a Burrowing Owl Plan. If the surveys determine the presence of burrowing owls, a Burrowing Owl Plan consistent with the guidance in the CDFW Staff Report on Burrowing Owl Mitigation (CDFW 2012) shall be prepared and implemented. The Burrowing Owl Plan shall describe proposed avoidance, minimization, mitigation, and monitoring actions. The Burrowing Owl Plan shall include the number and location of occupied burrow sites, acres of burrowing owl habitat that will be impacted, details of site monitoring, and details on proposed buffers and other avoidance measures if avoidance is proposed. If impacts to occupied burrowing owl habitat or burrow cannot be avoided, the Burrowing Owl Plan shall also describe minimization and relocation actions that will be implemented. Proposed implementation of burrow exclusion and closure should only be considered as a last resort, after all other options have been evaluated. If impacts to occupied burrows cannot be avoided, information shall be provided regarding adjacent or nearby suitable habitat available to owls along with proposed relocation actions. ~~mitigation in accordance with the CDFW shall be implemented as follows:~~

~~If passive relocation actions~~ If burrowing owls are identified as being resident onsite outside the breeding season (September 1 to February 14) are determined to be necessary, coordination with CDFW will occur prior to the initiation of relocation activities. ~~they may be relocated to other sites by an approved permitted biologist (permitted approved by CDFW) or passive relocation in coordination with CDFW, as allowed in the CDFW Staff Report on Burrowing Owl Mitigation (CDFW 2012).~~

If an active burrow is found during the breeding season, the Burrowing Owl Plan shall be implemented and the burrow shall be treated as a nest site, and temporary fencing or staking with flagging shall be installed at a distance from the active burrow, to be determined by the biologist in accordance with the Burrowing Owl Plan, to prevent disturbance during grading or construction. Installation and removal of the fencing shall be done with a biological monitor present.

~~Active relocation and eviction/passive relocation require the preservation and maintenance of suitable burrowing owl habitat determined through coordination with the Wildlife Agencies.~~

Response to Comment A-5:

CDFW summarizes Mitigation Measure BIO-PS-2 and states it lacks protection for bats using the Project Area and adjacent areas as hibernacula. CDFW recommends the replacement of the existing mitigation measure to reduce impacts to less than significant. Because Project activities would not result in direct or permanent impacts to bat roosting habitat, Mitigation Measure BIO-PS-2 is sufficient. The following minor text change will be made to existing Mitigation Measure BIO-PS-2 (Pre-Construction Bat Surveys) on pages 4 and 4-39 through 4-41. Changes in text are identified by ~~strikeout~~ where text is removed and by underline where text is added. The revised Mitigation Measure BIO-PS-2 (Pre-Construction Bat Surveys) will state:

Prior to the initiation of Project activities within ~~300~~ 500 feet of identified potentially suitable bat roosting habitat within the Study Area, a focused bat habitat assessment ~~pre-construction bat surveys~~ will be conducted by a qualified bat biologist. The ~~pre-construction surveys~~ bat habitat assessment will examine existing structures and trees within the Study Area that have features suitable for day roosting and/or night roosting. Suitable bat roosting features for trees (e.g., large tree cavities, basal hollows, loose or peeling bark, palm trees with intact thatch, etc.) and existing man-made structures (e.g.,

crevices and cracks commonly 0.5 to 4.0 inches wide, with an orientation shielded from wind and rain from above and allows entry from below or to the side; crevices with filler materials that create additional roosting surfaces, temperature regimes, and shelter) will be documented and the area around these features will be searched for bats and bat sign (guano, staining, culled insect parts) prior to project initiation.

If suitable bat-roosting habitat with potential roost sites is found during the bat habitat assessment, Pre-construction surveys shall occur no more-less than 30 days prior to the initiation of Project activities, regardless of the time of year. During the pre-construction surveys, the qualified bat biologist will inspect all structures proposed for disturbance for evidence of bat occupation. Visual inspections shall focus on the identification of bat sign (i.e., individuals, guano, urine staining, corpses, feeding remains, scratch marks and bats squeaking and chattering). If evidence of bat occupation is observed during the pre-construction survey and/or the structure is unable to be sufficiently inspected to determine occupation, the pre-construction survey will also include a nighttime emergence survey component. Bat detectors, bat call analysis, and visual observation shall be used during all nighttime surveys. Nighttime emergence surveys shall be conducted by a qualified bat biologist under appropriate weather conditions and moon phase. These surveys will inform the current size and composition of the roosting colony at a given structure at the time of Project activities and may dictate any modifications to the avoidance measures provided.

- a) If no evidence of bat occupation of the structure is identified during the surveys and the qualified bat biologist determines that roosting bats are unlikely to be affected by the Project activities slated to occur beneath, on, or adjacent to the structure, then Project activities may proceed as planned without a biological monitor.
- b) If evidence of bat occupation is identified during surveys and/or the emergence survey determines that bats are occupying the structure, the qualified bat biologist will identify the bats to the species level and evaluate the colony to determine its size and significance. Maternity roosts and hibernacula shall not be evicted, excluded, removed, or disturbed. The qualified bat biologist will then provide additional measures to avoid impacts to roosting bats.
- c) If bats are determined to be day roosting in the structure during the preconstruction surveys, and construction is scheduled during the bat maternity season (April 1 through August 31), construction activities at the structure shall be postponed until after August 31 and the measures outlined below will apply:
 - i. A no-work buffer as determined by the qualified bat biologist shall be established. The size of the buffer shall be determined by the qualified bat biologist based on the species present and type of roost. Monitoring of Project activities shall be conducted by a qualified bat biologist.
 - ii. Night lighting shall be used only on the portion of the structure actively being worked on and focused on the direct area of work.
 - iii. Airspace access to and from the roost features of the structure shall not be obstructed except in direct work areas.

- iv. To the extent practicable, internal combustion equipment such as generators and vehicles are not to be parked or operated beneath or adjacent to the structures unless they are required for Project-related work on that structure.
- v. Construction personnel shall not be present in non-active areas beneath the structure.
- vi. In the case of daytime Project activities, if the biological monitor determines that construction activities are causing day-roosting bats to leave the roost during daytime hours, the monitor shall stop that construction activity immediately and for the remainder of the day. This will allow any bats that may be roosting in that structure to leave that section of the roost that evening, and work may resume the following morning with a monitor present.
- vii. In the case of nighttime Project activities on or adjacent to structures identified as night roosts, if the biological monitor determines that construction activities are causing bats to not return for night roosting or altering foraging behavior, the monitor shall stop that construction activity immediately and for the remainder of the night. This will allow any bats to return for night roosting the same night and work may resume the following night with a monitor present.
- viii. If deemed necessary by the qualified bat biologist, additional avoidance measures (such as a sound blanket) may be implemented before activities within the vicinity resume.

Response to Comment A-6:

CDFW recommends the replacement of the existing Mitigation Measure BIO-PS-5 to minimize impacts of tree removal, relocation, or maintenance work on bats hibernating or entering torpor during the winter. The following minor text change will be made to existing Mitigation Measure BIO-PS-5 (Tree Avoidance and Removal Process) on pages 6, 4-42, and 4-43. Changes in text are identified by ~~strikeout~~ where text is removed and by underline where text is added. The revised Mitigation Measure BIO-PS-5 (Tree Avoidance and Removal Process) will state:

If trees are scheduled to be removed (e.g., relocating)/modified (i.e., trimming) and determined to be suitable for bat roosting or if work is expected to occur within 100 feet of suitable trees, these activities ~~should~~ shall be scheduled between September 15 and October 31 to minimize direct impacts to roosting bats. This time period is after young are volant (flying) but before expected onset of torpor (wintering inactivity). ~~Tree removal, relocation, or maintenance work may also be conducted between February 15 and March 31, following winter torpor and prior to the start of the maternity season. No tree removals, relocations, or maintenance shall occur during the hibernation season, which typically begins in November or December (depending on weather conditions) and continues through mid-February, due to the high potential for mortality of hibernating bats. Depending on weather conditions and the best professional judgement of a qualified bat biologist approved by CDFW, tree removal, relocation, or maintenance work may be performed in November if the forecasted nighttime low temperatures on the evening of removal and the subsequent four evenings do not drop below 45°F. In November, if weather is cold (i.e., forecasted nighttime low temperatures reach 45°F or less for that evening and the next four evenings), then no tree removals, relocations, or maintenance shall be performed. February 28 to avoid the maternity season and when evening temperatures are not below 45 degrees Fahrenheit and rain is not over 0.5 inch in 24 hours.~~

If tree removal/modification or work within 100 feet of suitable trees must occur during the maternity season, a qualified bat biologist shall conduct a focused emergence survey(s) of the tree(s) within 48 hours of scheduled work. If a maternity roost is located, whether solitary or colonial, that roost will remain undisturbed until after the maternity season (April 1 through August 31) or until a qualified biological monitor has determined the roost is no longer active.

If work is expected to occur outside of the bat maternity season (during conditions that meet the parameters described above), work adjacent to trees suitable as bat habitat can continue without additional surveying efforts. If trees with suitable bat roosting habitat are scheduled for removal or relocation during this time frame, removal using the two-step method should be conducted:

1. As much as feasible, vegetation and trees within the area that are not suitable for roosting bats will be removed first to provide a disturbance that might reduce the likelihood of bats using the habitat.
2. Two-step tree removal will occur over two consecutive days under the supervision of a qualified bat biologist. On Day 1, small branches and small limbs containing no cavity, crevice, or exfoliating bark habitat on habitat trees (or ~~outer~~ live fronds above the frond skirt in the case of palm trees), as identified by a qualified bat biologist are removed first, using chainsaws only (i.e., no dozers, backhoes). The following day (Day 2), the remainder of the tree is to be felled/removed. (The intention of this method is to disturb the tree with noise and vibration and branch removal on Day 1. This should cause any potentially present day-roosting bats to abandon the roost tree after they emerge for nighttime foraging. Removing the tree quickly the next consecutive day should avoid reoccupation of the tree by bats.)

Response to Comment A-7:

CDFW recommends revisions to Mitigation Measure BIO-PS-4 to address impacts to bats using mud nests constructed by cliff swallows. The following minor text change will be made to existing Mitigation Measure BIO-PS-4 (Cliff Swallow Nest Avoidance) on pages 6 and 4-42 of the IS/MND. Changes in text are identified by ~~strikeout~~ where text is removed and by underline where text is added. The revised Mitigation Measure BIO-PS-4 (Cliff Swallow Nest Avoidance) will state:

Some bat species may roost in cliff swallow nests at any time of year. The removal of cliff swallow nests shall be avoided to the greatest extent feasible. If cliff swallow nests must be removed, prior to removal they should ~~shall~~ first be observed to confirm that cliff swallows are not using the nests in accordance with Mitigation Measure BIO-5. To avoid impacts to bats, each nest shall be inspected by a qualified bat biologist experienced in inspecting mud nests, with a borescope inspection camera or similar device. If the qualified biologist, while inspecting mud nests, detects bats using mud nests as roosting habitat, the mud nests will not be disturbed while bats are present. Mud nests used by bats may be inspected by a qualified bat biologist and removed at night (i.e., beginning approximately 1.5 hours after sunset to avoid disrupting the emergence) when bats typically leave the roost to forage. Only the qualified biologist may remove mud nests, be removed by, or under the direct supervision of a ~~CDFW-approved bat biologist with a Scientific Collecting Permit from CDFW to handle bats, and in such a way that the nest is kept intact and not dropped to the ground until it can be inspected by the biologist.~~ Swallow nest removal shall follow the guidance provided by the California Bat Working Group (CBWG) Bats in Swallow Nests resource (CBWG 2022). Specific avoidance and minimization measure

shall include, but are not limited to, performing mud-nest removals between September 15 and October 31, after young are volant but before expected onset of seasonal torpor; removing previously occupied nests only if that night's weather conditions exclude severe winds, precipitation, or nighttime temperatures below 45 degrees Fahrenheit; and avoiding removals during the hibernation season, which typically begins in November or December depending on weather conditions and continues through mid-February. Nest-removal during the winter may occur at the discretion of the qualified bat biologist if the forecast excludes the weather conditions described above.

Response to Comment A-8:

CDFW notes the existing Mitigation Measure BIO-PS-3 infers Project construction may occur at night and recommends a revision to avoid and minimize impacts to bats and other wildlife. The following minor text change will be made to existing Mitigation Measure BIO-PS-3 (Nighttime Work Avoidance) on pages 5, 6, 4-41, and 4-42 of the IS/MND. Changes in text are identified by ~~strikeout~~ where text is removed and by underline where text is added. The revised Mitigation Measure BIO-PS-3 (Nighttime Work Avoidance) will state:

Avoid night work at all structures where night roosting has been identified. If avoiding night work is impossible, further minimization measures such as those listed below will be necessary.

- a) Night lighting shall be used only on areas actively being worked on and focused on the direct area of work.
- b) Airspace access to and from the roost features of the structure shall not be obstructed except in direct work areas.
- c) To the extent practicable, internal combustion equipment such as generators and vehicles are not to be parked or operated beneath or adjacent to the potential roosting structures unless they are required for Project-related work on that structure.
- d) Construction personnel shall not be present in non-active areas beneath the structures or vegetation designated as bat roosting habitat.
- e) Project construction activities shall, to the extent feasible, avoid the period of 1.5 hours prior to dawn and the period of 1.5 hours after dusk when bats and many nocturnal and crepuscular wildlife species are most active.

Response to Comment A-9:

CDFW notes that per CEQA information developed in environmental impact reports and negative declarations is required to be incorporated into a database for subsequent or supplemental environmental determinations. CDFW requests that CVWD report any special status species and natural communities detected during Project surveys to the California Natural Diversity Database. CVWD will comply with this request. No changes to the IS/MND are required in response to this comment.

Response to Comment A-10:

This comment notes that environmental document filing fees are necessary upon filing of the Notice of Determination. CVWD will pay the applicable filing fees. No changes to the IS/MND are required in response to this comment.

Response to Comment A-11:

In this comment CDFW concludes that the IS/MND does not adequately identify or mitigate the Project's impacts to biological resources and recommends revisions to the Project's mitigation measures. Responses to CDFW's recommended revisions are provided in Response to Comment A-1 through A-8 above. No further response is required.



**Mitigation Monitoring and Reporting Program
for the
Water Reclamation Plant No. 7 (WRP 7) Phase 1 Non-Potable Water
Improvements Project**

Mitigated Negative Declaration

SCH#: 2023080439

Prepared by:

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September 2023

Mitigation Monitoring and Reporting Program

The California Environmental Quality Act (CEQA) requires that when a lead agency adopts a Mitigated Negative Declaration (MND), it shall prepare a monitoring or reporting program for all required mitigation measures (CEQA Guidelines Section 15097). This Mitigation Monitoring and Reporting Program (MMRP) describes the monitoring and reporting program for mitigation measures adopted by Coachella Valley Water District (CVWD) to avoid or substantially reduce impacts related to the *Water Reclamation Plant No. 7 (WRP 7) Phase 1 Non-Potable Water Improvements Project* (Project) to less than significant levels. CVWD and its contractors are required to implement the adopted mitigation measures for the Proposed Project in accordance with the MND. This MMRP contains a checklist and description of all adopted mitigation measures, including the responsible parties, timing, and completion criteria.

Program Administration

The MMRP shall be administered by CVWD. Mitigation measures shall be incorporated into design and construction contracts, as appropriate, to ensure full implementation. The MMRP shall be maintained by the designated CVWD Project Manager and be available for inspection upon request at CVWD offices.

Project Description

CVWD proposes improvements to the existing tertiary treatment plant processes and an existing canal pump station at WRP 7. The Project would reduce the usage of non-potable water (NPW) from the Coachella Canal by generating additional recycled water (RW), which would benefit existing NPW/RW users in the WRP 7 service area. The WRP 7 Tertiary Treatment Improvements and MP 113.2 Pump Station Rehabilitation Project includes the following upgrades:

- Retrofit the existing dual media filter basins with cloth disk filters to improve tertiary treatment to match the rated capacity of the plant within the same footprint.
- Construct a low-pressure ultraviolet (UV) system with 12 lamps and 2 channels (100 ml/cm²) to match the rated capacity of the plant in accordance with Title 22 regulations, in an enclosed 44-foot by 61-foot building and with an electrical building to substitute use of chlorine gas.
- Abandon the existing chlorine gas system and maintain the existing chlorine contact basin for potential future use by operations for effluent/backwash holding.
- Upgrade of the existing systems associated with the tertiary process includes the in-kind replacement of the following:
 - Secondary effluent flocculation system
 - Tertiary process chemical feed systems, including sodium hypochlorite storage in fiber-reinforced plastic-coated steel tanks. Includes replacement of existing feed pumps for additional capacity due to increased tertiary flows and feed piping.
 - In-plant secondary effluent, and NPW delivery pumping systems capacity increase for a 5.5 MGD system (2.5 MGD existing).
 - Tertiary Process electrical motor control centers (MCCs). A new electrical control building would house existing and new components.

CVWD is also replacing the aged infrastructure at canal water delivery pump station MP 113.2 as part of this Project. To maintain the current capacity of the pump station, the two existing pumps and MCC's are being replaced with pumps that are more efficient and drives requiring less horsepower. The motors would be approximately 10 percent more efficient, and horsepower (HP) would be reduced from 150-HP to 100-HP per pump. A third pump is being added to allow operations to perform routine maintenance while maintaining facility capacity in a typical two-duty and one-standby configuration. All improvements to the pump station are within the existing MP 113.2 site located on the southwest corner of the Madison Street and Avenue 40 intersection.

The Proposed Project would also install approximately 2,500 linear feet of NPW pipeline to connect Young's Farmland to the existing NPW pipeline on Avenue 38. Young's Farmland currently uses groundwater for irrigation. The Project would convert the primary irrigation source from groundwater to recycled water. The Young's Farmland NPW pipeline would be installed within the right-of-way of Jefferson Street and on Young's Farmland property (APN 691-060-010, 691-050-010, and 691-050-012).

Mitigation Monitoring Requirements

A mitigation monitoring checklist has been developed for the Proposed Project and is intended for use by CVWD, as lead agency and designated monitoring entity for the Proposed Project. The checklist, presented as Table 1, summarizes the mitigation requirements for the Proposed Project, anticipates timing, and identifies responsible parties for ensuring implementation of each mitigation measure. These mitigation measures are presented using the naming conventions and categories in the MND.

Mitigation Measures	Monitoring and Reporting Actions	Implementation Schedule	Monitoring Frequency	Responsible Party	Review and Approval by:	Verification: Status/ Date Completed/ Initials
Project Specific Mitigation Measures						
Biological Resources						
<p>Mitigation Measure BIO-PS-1: Burrowing Owl Presence/Absence. If, during the pre-construction Burrowing Owl Surveys, burrows onsite are determined to be unoccupied, construction may proceed without the preparation of a Burrowing Owl Plan. If the surveys determine the presence of burrowing owls, a Burrowing Owl Plan consistent with the guidance in the CDFW <i>Staff Report on Burrowing Owl Mitigation</i> (CDFW 2012) shall be prepared and implemented. The Burrowing Owl Plan shall describe proposed avoidance, minimization, mitigation, and monitoring actions. The Burrowing Owl Plan shall include the number and location of occupied burrow sites, acres of burrowing owl habitat that will be impacted, details of site monitoring, and details on proposed buffers and other avoidance measures if avoidance is proposed. If impacts to occupied burrowing owl habitat or burrow cannot be avoided, the Burrowing Owl Plan shall also describe minimization and relocation actions that will be implemented. Proposed implementation of burrow exclusion and closure should only be considered as a last resort, after all other options have been evaluated. If impacts to occupied burrows cannot be avoided, information shall be provided regarding adjacent or nearby suitable habitat available to owls along with proposed relocation actions.</p> <p>If passive relocation actions outside the breeding season (September 1 to February 14) are determined to be necessary, coordination with CDFW will occur prior to the initiation of relocation activities.</p> <p>If an active burrow is found during the breeding season, the Burrowing Owl Plan shall be implemented and the burrow shall be treated as a nest site, and temporary fencing or staking with flagging shall be installed at a distance from the active burrow, to be determined by the biologist in accordance with the Burrowing Owl Plan, to prevent disturbance during grading or construction. Installation and removal of the fencing shall be done with a biological monitor present.</p>	<ol style="list-style-type: none"> 1. Include measures in contract documents. 2. Pre-Construction burrowing owl surveys and a Burrowing Owl Plan. If burrowing owls identified onsite outside breeding season, permitted biologist may relocate; If burrowing owls identified onsite during breeding season, biologist shall treat as a nest site and implement appropriate fencing/staking. 3. Consult on finding and implement treatment measures, if applicable. 	<ol style="list-style-type: none"> 1. Contracting 2. Pre-Construction 3. Construction 	<ol style="list-style-type: none"> 1. Once 2. Prior to start of construction. 3. Once 	<ol style="list-style-type: none"> 1. CVWD 2. CVWD; Project Biologist 3. CVWD 	CVWD	<ol style="list-style-type: none"> 1. _____ 2. _____ 3. _____
<p>Mitigation Measure BIO-PS-2: Pre-Construction Bat Surveys. Prior to the initiation of Project activities within 300-500 feet of identified potentially suitable bat roosting habitat within the Study Area, a focused bat habitat assessment will be conducted by a qualified bat biologist. The bat habitat assessment will examine existing structures and trees within the Study Area that have features suitable for day roosting and/or night roosting. Suitable bat roosting features for trees (e.g., large tree cavities, basal hollows, loose or peeling bark, palm trees with intact thatch, etc.) and existing man-made structures (e.g., crevices and cracks commonly 0.5 to 4.0 inches wide, with an orientation shielded from wind and rain from above and allows entry from below or to the side; crevices with filler materials that create additional roosting surfaces, temperature regimes, and shelter) will be documented and the area around these features will be searched for bats and bat sign (guano, staining, culled insect parts) prior to project initiation.</p> <p>If suitable bat-roosting habitat with potential roost sites is found during the bat habitat assessment, pre-construction surveys shall occur no less than 30 days prior to the initiation of Project activities, regardless of the time of year. During the pre-construction surveys, the qualified bat biologist will inspect all structures proposed for disturbance for evidence of bat occupation. Visual inspections shall focus on the identification of bat sign (i.e., individuals, guano, urine staining, corpses, feeding remains, scratch marks and bats squeaking and chattering). If evidence of bat occupation is observed during the pre-construction survey and/or the structure is unable to be sufficiently inspected to determine occupation, the pre-construction survey will also include a nighttime emergence survey component. Bat detectors, bat call analysis, and visual observation shall be used during all nighttime surveys. Nighttime emergence surveys shall be conducted by a qualified bat biologist under appropriate weather conditions and moon phase. These surveys will inform the current size and composition of the roosting colony at a given structure at the time of Project activities and may dictate any modifications to the avoidance measures provided.</p>	<ol style="list-style-type: none"> 1. Include measures in contract documents. 2. Bat habitat assessment. If suitable bat-roosting habitat observed, qualified bat biologist will conduct pre-construction survey. If bats are determined to be occupying a structure, bat biologist will evaluate and provide additional measures to avoid impacts to bats. 3. Consult on finding and implement treatment measures, if applicable. 	<ol style="list-style-type: none"> 1. Contracting 2. Pre-Construction 3. Construction 	<ol style="list-style-type: none"> 1. Once 2. As needed, prior to Project activities. Should occur no less than 30 days prior to the start of Project activities. 3. Once 	<ol style="list-style-type: none"> 1. CVWD 2. CVWD; Project biologist 3. CVWD 	CVWD	<ol style="list-style-type: none"> 1. _____ 2. _____ 3. _____

Mitigation Measures	Monitoring and Reporting Actions	Implementation Schedule	Monitoring Frequency	Responsible Party	Review and Approval by:	Verification: Status/ Date Completed/ Initials
<p>a) If no evidence of bat occupation of the structure is identified during the surveys and the qualified bat biologist determines that roosting bats are unlikely to be affected by the Project activities slated to occur beneath, on, or adjacent to the structure, then Project activities may proceed as planned without a biological monitor.</p> <p>b) If evidence of bat occupation is identified during surveys and/or the emergence survey determines that bats are occupying the structure, the qualified bat biologist will identify the bats to the species level and evaluate the colony to determine its size and significance. Maternity roosts and hibernacula shall not be evicted, excluded, removed, or disturbed. The qualified bat biologist will then provide additional measures to avoid impacts to roosting bats.</p> <p>c) If bats are determined to be day roosting in the structure during the preconstruction surveys, and construction is scheduled during the bat maternity season (April 1 through August 31), construction activities at the structure shall be postponed until after August 31 and the measures outlined below will apply:</p> <ul style="list-style-type: none"> i. A no-work buffer as determined by the qualified bat biologist shall be established. The size of the buffer shall be determined by the qualified bat biologist based on the species present and type of roost. Monitoring of Project activities shall be conducted by a qualified bat biologist. ii. Night lighting shall be used only on the portion of the structure actively being worked on and focused on the direct area of work. iii. Airspace access to and from the roost features of the structure shall not be obstructed except in direct work areas. iv. To the extent practicable, internal combustion equipment such as generators and vehicles are not to be parked or operated beneath or adjacent to the structures unless they are required for Project-related work on that structure. v. Construction personnel shall not be present in non-active areas beneath the structure. vi. In the case of daytime Project activities, if the biological monitor determines that construction activities are causing day-roosting bats to leave the roost during daytime hours, the monitor shall stop that construction activity immediately and for the remainder of the day. This will allow any bats that may be roosting in that structure to leave that section of the roost that evening, and work may resume the following morning with a monitor present. vii. In the case of nighttime Project activities on or adjacent to structures identified as night roosts, if the biological monitor determines that construction activities are causing bats to not return for night roosting or altering foraging behavior, the monitor shall stop that construction activity immediately and for the remainder of the night. This will allow any bats to return for night roosting the same night and work may resume the following night with a monitor present. viii. If deemed necessary by the qualified bat biologist, additional avoidance measures (such as a sound blanket) may be implemented before activities within the vicinity resume. 						

Mitigation Measures	Monitoring and Reporting Actions	Implementation Schedule	Monitoring Frequency	Responsible Party	Review and Approval by:	Verification: Status/ Date Completed/ Initials
<p>Mitigation Measure BIO-PS-3: Nighttime Work Avoidance. Avoid night work at all structures where night roosting has been identified. If avoiding night work is impossible, further minimization measures such as those listed below will be necessary.</p> <ul style="list-style-type: none"> a) Night lighting shall be used only on areas actively being worked on and focused on the direct area of work. b) Airspace access to and from the roost features of the structure shall not be obstructed except in direct work areas. c) To the extent practicable, internal combustion equipment such as generators and vehicles are not to be parked or operated beneath or adjacent to the potential roosting structures unless they are required for Project-related work on that structure. d) Construction personnel shall not be present in non-active areas beneath the structures or vegetation designated as bat roosting habitat. e) Project construction activities shall, to the extent feasible, avoid the period of 1.5 hours prior to dawn and the period of 1.5 hours after dusk when bats and many nocturnal and crepuscular wildlife species are most active. 	<ul style="list-style-type: none"> 1. Include measures in contract documents. 2. Night work at all structures where night roosting has been identified should be avoided. 3. Consult on finding and implement treatment measures, if applicable. 	<ul style="list-style-type: none"> 1. Contracting 2. Construction 3. Construction 	<ul style="list-style-type: none"> 1. Once 2. Throughout construction, if applicable. 3. Once 	<ul style="list-style-type: none"> 1. CVWD 2. CVWD; Construction Contractor 3. CVWD 	CVWD	<ul style="list-style-type: none"> 1. _____ 2. _____ 3. _____
<p>Mitigation Measure BIO-PS-4: Cliff Swallow Nest Avoidance. Some bat species may roost in cliff swallow nests at any time of year. The removal of cliff swallow nests shall be avoided to the greatest extent feasible. If cliff swallow nests must be removed, prior to removal they shall first be observed to confirm that cliff swallows are not using the nests in accordance with Mitigation Measure BIO-5. To avoid impacts to bats, each nest shall be inspected by a CDFW-approved bat biologist experienced in inspecting mud nests, with a borescope inspection camera or similar device, which requires a Scientific Collecting Permit. If the qualified biologist, while inspecting mud nests, detects bats using mud nests as roosting habitat, the mud nests will not be disturbed while bats are present. Mud nests used by bats may be inspected by a qualified bat biologist and removed at night (i.e., beginning approximately 1.5 hours after sunset to avoid disrupting the emergence) when bats typically leave the roost to forage. Only the qualified biologist may remove mud nests. Swallow nest removal shall follow the guidance provided by the California Bat Working Group (CBWG) Bats in Swallow Nests resource (CBWG 2022). Specific avoidance and minimization measure shall include, but are not limited to, performing mud-nest inspections and removals between September 15 and October 31, after young are volant but before expected onset of seasonal torpor; removing previously occupied nests only if that night's weather conditions exclude severe winds, precipitation, or nighttime temperatures below 45 degrees Fahrenheit; and avoiding removals during the hibernation season, which typically begins in November or December depending on weather conditions and continues through mid-February.</p>	<ul style="list-style-type: none"> 1. Include measures in contract documents. 2. Cliff swallow nests shall be avoided to the greatest extent feasible. CDFW-approved bat biologist shall inspect nests and remove any necessary nests. 	<ul style="list-style-type: none"> 1. Contracting 2. Pre-Construction (September 1 to October 31 or during month of March) 	<ul style="list-style-type: none"> 1. Once 2. As necessary 	<ul style="list-style-type: none"> 1. CVWD 2. CVWD 	CVWD	<ul style="list-style-type: none"> 1. _____ 2. _____
<p>Mitigation Measure BIO-PS-5: Tree Avoidance and Removal Process. If trees are scheduled to be removed (e.g., relocating)/modified (i.e., trimming) and determined to be suitable for bat roosting or if work is expected to occur within 100 feet of suitable trees, these activities shall be scheduled between September 15 and October 31 to minimize direct impacts to roosting bats. This time period is after young are volant (flying) but before expected onset of torpor (wintering inactivity). Tree removal, relocation, or maintenance work may also be conducted between February 15 and March 31, following winter torpor and prior to the start of the maternity season. No tree removals, relocations, or maintenance shall occur during the hibernation season, which typically begins in November or December (depending on weather conditions) and continues through mid-February, due to the high potential for mortality of hibernating bats. Depending on weather conditions and the best professional judgement of a qualified bat biologist approved by CDFW, tree removal, relocation, or maintenance work may be performed in November if the forecasted nighttime low temperatures on the evening of removal and the subsequent four evenings do not drop below 45°F. In November, if weather is cold</p>	<ul style="list-style-type: none"> 1. Include measures in contract documents. 2. Qualified bat biologist shall conduct focused emergence surveys of suitable trees scheduled for removal. Trees shall be removed using the two-step method over two consecutive days. 	<ul style="list-style-type: none"> 1. Contracting 2. Pre-Construction (September 15 to October 31) 	<ul style="list-style-type: none"> 1. Once 2. Within 48 hours of scheduled tree removal. 	<ul style="list-style-type: none"> 1. CVWD 2. CVWD; Project biologist 	CVWD	<ul style="list-style-type: none"> 1. _____ 2. _____

Mitigation Measures	Monitoring and Reporting Actions	Implementation Schedule	Monitoring Frequency	Responsible Party	Review and Approval by:	Verification: Status/ Date Completed/ Initials
<p>(i.e., forecasted nighttime low temperatures reach 45°F or less for that evening and the next four evenings), then no tree removals, relocations, or maintenance shall be performed.</p> <p>If tree removal/modification or work within 100 feet of suitable trees must occur during the maternity season, a qualified bat biologist shall conduct a focused emergence survey(s) of the tree(s) within 48 hours of scheduled work. If a maternity roost is located, whether solitary or colonial, that roost will remain undisturbed until after the maternity season (April 1 through August 31) or until a qualified biological monitor has determined the roost is no longer active.</p> <p>If work is expected to occur outside of the bat maternity season (during conditions that meet the parameters described above), work adjacent to trees suitable as bat habitat can continue without additional surveying efforts. If trees with suitable bat roosting habitat are scheduled for removal or relocation during this time frame, removal using the two-step method should be conducted:</p> <ol style="list-style-type: none"> 1. As much as feasible, vegetation and trees within the area that are not suitable for roosting bats will be removed first to provide a disturbance that might reduce the likelihood of bats using the habitat. 2. Two-step tree removal will occur over two consecutive days under the supervision of a qualified bat biologist. On Day 1, small branches and small limbs containing no cavity, crevice, or exfoliating bark habitat on habitat trees (or live fronds above the frond skirt in the case of palm trees), as identified by a qualified bat biologist are removed first, using chainsaws only (i.e., no dozers, backhoes). The following day (Day 2), the remainder of the tree is to be felled/removed. (The intention of this method is to disturb the tree with noise and vibration and branch removal on Day 1. This should cause any potentially present day-roosting bats to abandon the roost tree after they emerge for nighttime foraging. Removing the tree quickly the next consecutive day should avoid reoccupation of the tree by bats.) 						
Cultural Resources						
<p>Mitigation Measure CUL-PS-1: Archaeological and Tribal Monitoring. Prior to the start of construction, the Project proponent shall retain a qualified professional archaeologist or tribal monitor representing a culturally affiliated tribe to monitor all ground-disturbing activities associated with undisturbed areas of the Project during construction. Monitoring is not required for placement of equipment, filling in excavations that were monitored, work conducted in previously excavated and graded soils such as WRP 7, above-ground construction activities, or redistribution of soils that were previously monitored (such as the return of stockpiles to use in backfilling). Both a professional archaeologist and tribal monitor may be required to monitor ground-disturbing activities associated within <i>known sensitive areas</i> of the Project during construction or in the instance of unanticipated discoveries.</p> <p>The archaeologist shall meet, or work under the direct supervision of someone who meets, the Secretary of the Interior's professional qualifications standards for prehistoric and historic archaeology. The archaeologist and tribal monitor shall have the authority to temporarily halt ground-disturbing or construction-related work within 100 feet of any discovery of potential historical or archaeological resources in order to implement any Project-specific mitigation measures developed to address unanticipated discoveries.</p>	<ol style="list-style-type: none"> 1. Include measure in contract documents. 2. Archaeological and tribal monitoring. 3. Consult on finding and implement treatment measures, if applicable. 	<ol style="list-style-type: none"> 1. Contracting 2. During all ground-disturbing activities 3. Construction 	<ol style="list-style-type: none"> 1. Once 2. During all ground-disturbing activities 3. Once 	<ol style="list-style-type: none"> 1. CVWD 2. CVWD; Qualified Archaeologist; Tribal monitor 3. CVWD; Qualified Archaeologist; Tribal monitor 	CVWD	<ol style="list-style-type: none"> 1. _____ 2. _____ 3. _____
<p>Mitigation Measure CUL-PS-2: Post-Review Discoveries. If subsurface deposits believed to be cultural or human in origin are discovered during construction, all work must halt within a 100-foot radius of the discovery. A qualified professional archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards for prehistoric and historic archaeology, shall be retained to evaluate the significance of the find, and shall have the authority to</p>	<ol style="list-style-type: none"> 1. Include measure in contract documents. 2. Archaeological evaluation of potential cultural resources. If the find is not a cultural resource, work 	<ol style="list-style-type: none"> 1. Contracting 2. During ground-disturbing activities 	<ol style="list-style-type: none"> 1. Once 2. Throughout ground-disturbing activities 	<ol style="list-style-type: none"> 1. CVWD 2. CVWD; Qualified Archaeologist; Tribal Monitor; 	CVWD	<ol style="list-style-type: none"> 1. _____ 2. _____

Mitigation Measures	Monitoring and Reporting Actions	Implementation Schedule	Monitoring Frequency	Responsible Party	Review and Approval by:	Verification: Status/ Date Completed/ Initials
<p>modify the no-work radius as appropriate, using professional judgment and taking into account the opinion of the tribal monitor. The following notifications shall apply, depending on the nature of the find:</p> <ul style="list-style-type: none"> ■ If the professional archaeologist determines that the find does not represent a cultural resource, work may resume immediately, and no agency notifications are required. ■ If the professional archaeologist determines that the find does represent a cultural resource from any time period or cultural affiliation, the archaeologist shall immediately notify the lead agencies. The agencies shall consult on a finding of eligibility and implement appropriate treatment measures, if the find is determined to be a Historical Resource under CEQA, as defined in Section 15064.5(a) of the CEQA Guidelines or a historic property under Section 106 NHPA, if applicable. Work may not resume within the no-work radius until the lead agencies, through consultation as appropriate, determine that the site either: 1) is not a Historical Resource under CEQA or a Historic Property under Section 106; or 2) that the treatment measures have been completed to their satisfaction. ■ If the find represents a Native American or potentially Native American resource that does not include human remains, then he or she shall further notify the Agua Caliente Band of Cahuilla Indians and the Augustine Band of Cahuilla Indians. The agencies shall consult with the tribes on a finding of eligibility and implement appropriate treatment measures, if the find is determined to be a Historical Resource under CEQA, as defined in Section 15064.5(a) of the CEQA Guidelines. Preservation in place is the preferred treatment, if feasible. Work may not resume within the no-work radius until the lead agencies, through consultation as appropriate, determine that the site either: 1) is not a Historical Resource under CEQA, as defined in Section 15064.5(a) of the CEQA Guidelines; or 2) that the treatment measures have been completed to their satisfaction. ■ If the find includes human remains, or remains that are potentially human, they shall ensure reasonable protection measures are taken to protect the discovery from disturbance (AB 2641). The archaeologist shall notify the Riverside County Coroner (per Section 7050.5 of the Health and Safety Code). The provisions of Section 7050.5 of the California Health and Safety Code, Section 5097.98 of the California PRC, and AB 2641 will be implemented. If the coroner determines the remains are Native American and not the result of a crime scene, the coroner will notify the NAHC, which then will designate a Native American Most Likely Descendant (MLD) for the Project (Section 5097.98 of the PRC). The designated MLD will have 48 hours from the time access to the property is granted to make recommendations concerning treatment of the remains. If the landowner does not agree with the recommendations of the MLD, the NAHC can mediate (Section 5097.94 of the PRC). If no agreement is reached, the landowner must rebury the remains where they will not be further disturbed (Section 5097.98 of the PRC). This will also include either recording the site with the NAHC or the appropriate Information Center; using an open space or conservation zoning designation or easement; or recording a reinternment document with the county in which the property is located (AB 2641). Work may not resume within the no-work radius until the lead agencies, through consultation as appropriate, determine that the treatment measures have been completed to their satisfaction. 	<p>may resume. If the find is a cultural resource, a no-work radius is established, agencies are notified, and treatment measures are determined.</p> <p>3. Consult on finding and implement treatment measure, if applicable.</p>	<p>3. During ground-disturbing activities</p>	<p>3. As necessary</p>	<p>Possible coordination with Riverside County Sheriff-Coroner</p> <p>3. CVWD; Qualified Professional Archaeologist; Tribal Monitor; Possible coordination with Riverside County Sheriff-Coroner</p>		<p>3. _____</p>
Geology and Soils						
<p>Mitigation Measure GEO-PS-1: Unanticipated Discovery – Paleontological Resource. If paleontological resources (i.e., fossil remains) are discovered during excavation activities, the contractor will notify CVWD and cease excavation within 50 feet of the find until a qualified paleontological professional can provide an evaluation of the find. The qualified paleontological professional will evaluate the significance of the find and recommend appropriate measures for the disposition of the resource (e.g., fossil recovery, curation, data recovery, and/or monitoring).</p>	<p>1. Include measure in contract documents.</p> <p>2. Evaluation of potential paleontological resources. If a</p>	<p>1. Contracting</p> <p>2. During excavation activities</p>	<p>1. Once</p> <p>2. During excavation activities</p>	<p>1. CVWD</p> <p>2. CVWD; Qualified Paleontologist</p>	<p>CVWD</p>	<p>1. _____</p> <p>2. _____</p>

Mitigation Measures	Monitoring and Reporting Actions	Implementation Schedule	Monitoring Frequency	Responsible Party	Review and Approval by:	Verification: Status/ Date Completed/ Initials
Construction activities may continue on other parts of the construction site outside of the 50-foot buffer while evaluation and treatment of the paleontological resource takes place.	<p>resource is found, a 50-foot buffer is established while the find is evaluated.</p> <p>3. Qualified paleontologist will determine significance and appropriate treatment measure, if applicable.</p>	3. During excavation activities	3. Once	3. CVWD; Qualified Paleontologist		3. _____
Mitigation Measures Incorporated from the 2020 SMP PEIR						
Biological Resources						
<p>Mitigation Measure BIO-2: CVMSHCP Land Use Adjacency Guidelines. Prior to final design approval for projects adjacent to a Conservation Area, compliance with Section 4.5 (Land Use Adjacency Guidelines) of the CVMSHCP shall be demonstrated. Such compliance shall include, but not necessarily be limited to, demonstrating the design of the project would not result in the release of toxins, chemicals, petroleum products, exotic plant materials, or other elements that might degrade or harm biological resources or ecosystem processes within or adjacent to a Conservation Area.</p>	<p>1. Include measure in contract documents.</p> <p>2. Project design shall comply with Section 4.5 of the CVMSHCP</p>	<p>1. Contracting</p> <p>2. Pre-Construction and During Construction</p>	<p>1. Once</p> <p>2. Once.</p>	<p>1. CVWD</p> <p>2. CVWD; Construction Contractor</p>	CVWD	<p>1. _____</p> <p>2. _____</p>
<p>Mitigation Measure BIO-3: Pre-construction Burrowing Owl Surveys. For covered activities in Conservation Areas, or other areas as designated in Section 4.4 of the CVMSHCP, pre-construction burrowing owl surveys will be conducted by a qualified biologist within 14 days and again 24 hours prior to the implementation of ground disturbing activities. The project area and area within 500 feet of the project area (or to the edge of the property if less than 500 feet) will be surveyed for burrows that could be used by burrowing owls. If burrows are located, the biologist will determine if owls are present in the burrow. If the burrow is determined to be occupied, the burrow will be flagged and a 160-foot non-breeding season buffer or 250-foot breeding season buffer will be established around the burrow. No activities will be permitted within the buffer until the young are no longer dependent on the burrow.</p> <p>If burrowing owls are identified on site, then burrow excavation and collapse activities will be necessary. Burrow excavation and collapse activities shall only be conducted during the non-breeding season for burrowing owls (September 1 through January 31). Coordination with CDFW on burrow excavation and collapse activities will need to occur, and methods will follow the specific protocols and guidance outlined in the CDFW <i>Staff Report on Burrowing Owl Mitigation</i> (2012).</p>	<p>1. Include measure in contract documents.</p> <p>2. Pre-construction burrowing owl surveys by qualified biologist. If owls are present in burrows, a no-work buffer is established. Burrow excavation and collapse to take place during non-breeding season.</p> <p>3. Coordinate with CDFW on burrow excavation and collapse activities.</p>	<p>1. Contracting</p> <p>2. Pre-Construction</p> <p>3. Pre-Construction</p>	<p>1. Once</p> <p>2. Twice. Within 14 days and again 24 hours prior to start of ground disturbing activities.</p> <p>3. As necessary</p>	<p>1. CVWD</p> <p>2. CVWD; Qualified Biologist; Coordination with CDFW</p> <p>3. CVWD; Project Biologist; Coordination with CDFW</p>	CVWD	<p>1. _____</p> <p>2. _____</p> <p>3. _____</p>
<p>Mitigation Measure BIO-5: Pre-construction Survey for Nesting Birds. Construction activities of projects shall be conducted during the non-breeding season for birds (September 16 through December 31). This will avoid violations of the MBTA and CFGC Sections 3503, 3503.5 and 3513. If activities with the potential to disrupt nesting birds are scheduled to occur during the bird breeding season (January 1 through July 31 for raptors and March 1 through September 15 for songbirds), a pre-construction nesting bird survey shall be conducted by a qualified biologist within the project area and adjacent areas where project activities have the potential to cause nest failure. If no nesting birds are observed during the survey, implementation of project activities may begin. If nesting birds (including nesting raptors) are found to be present, then avoidance or minimization measures shall be undertaken in consultation with CDFW. Measures shall include establishment of an avoidance buffer until nesting has been completed. The width of the buffer will be determined by the biologist in consultation with CDFW. Typically, this is a minimum of 300 feet from</p>	<p>1. Include measure in contract documents.</p> <p>2. Pre-construction nesting bird survey conducted by qualified biologist. Project activities can begin if no nesting birds are observed. If nesting birds are present, avoidance buffer is established until nesting is complete.</p>	<p>1. Contracting</p> <p>2. Pre-Construction</p>	<p>1. Once</p> <p>2. Prior to construction activities if activities scheduled during bird breeding season (January 1 through September 15).</p>	<p>1. CVWD</p> <p>2. CVWD; Qualified Biologist</p>	CVWD	<p>1. _____</p> <p>2. _____</p>

Mitigation Measures	Monitoring and Reporting Actions	Implementation Schedule	Monitoring Frequency	Responsible Party	Review and Approval by:	Verification: Status/ Date Completed/ Initials
the nest site in all directions (500 feet is typically recommended by CDFW for raptors), until the juveniles have fledged and there has been no evidence of a second attempt at nesting.	3. Consult with CDFW for avoidance or minimization measures, if necessary.	3. Pre-Construction	3. As necessary	3. CVWD; Qualified Biologist; CDFW		3. _____
Cultural Resources						
<p>Mitigation Measure CUL-1: For projects located within Known High-Sensitivity areas and Assumed High-Sensitivity areas, a qualified archaeologist shall conduct a project-specific CEQA-compliant Phase I Cultural Resources Study for inclusion in the project-specific CEQA document. The study shall include a records search at the applicable archaeological Information Center, a search of the Sacred Lands File by NAHC, and a field survey using standard archaeological methods. These studies shall occur during the project-specific CEQA process.</p> <p>For projects located within Low-Sensitivity areas a project-specific CEQA-Compliant Phase I Cultural Resources Study shall be conducted by a qualified archaeologist. However, because these areas have been subject to previous assessment, the CVWD may be able to utilize data from previous studies to reduce the effort necessary for a proposed project. Whether or not data from previous studies can be used to reduce study efforts will be dependent on the scope, methods, and age of the previous studies. These studies shall occur during the project-specific CEQA process.</p>	<p>1. Include measure in contract documents</p> <p>2. Project-specific CEQA-compliant Phase I Cultural Resources Study conducted by a qualified professional archaeologist.</p>	<p>1. Contracting</p> <p>2. Project Planning and Design</p>	<p>1. Once</p> <p>2. Once</p>	<p>1. CVWD</p> <p>2. CVWD; Qualified Professional Archaeologist; Native American Heritage Commission (NAHC) and/or Eastern Information Center (EIC)</p>	CVWD	<p>1. _____</p> <p>2. _____</p>
<p>Mitigation Measure CUL-2: If subsurface deposits believed to be cultural or human in origin are discovered during construction, all work must halt within a 100-foot radius of the discovery. A qualified professional archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards for pre-contact and historic archaeologist, shall be retained to evaluate the significance of the find, and shall have the authority to modify the no-work radius as appropriate, using professional judgment. The following notifications shall apply, depending on the nature of the find:</p> <ul style="list-style-type: none"> ■ If the professional archaeologist determines that the find does not represent a cultural resource, work may resume immediately, and no agency notifications are required. ■ If the professional archaeologist determines that the find does represent a cultural resource from any time period or cultural affiliation, he or she shall immediately notify the Lead Agency, and applicable landowner. The agencies shall consult on a finding of eligibility and implement appropriate treatment measures, if the find is determined to be a Historical Resource under CEQA, as defined in Section 15064.5(a) of the CEQA Guidelines. Work may not resume within the no-work radius until the lead agencies, through consultation as appropriate, determine that the site either: 1) is not a Historical Resource under CEQA, as defined in Section 15064.5(a) of the CEQA Guidelines; or 2) that the treatment measures have been completed to their satisfaction. ■ If the find includes human remains, or remains that are potentially human, he or she shall ensure reasonable protection measures are taken to protect the discovery from disturbance (AB 2641). The archaeologist shall notify the appropriate County Coroner (per § 7050.5 of the Health and Safety Code). The provisions of § 7050.5 of the California Health and Safety Code, § 5097.98 of the California Public Resources Code, and Assembly Bill (AB) 2641 will be implemented. If the Coroner determines the remains are Native American and not the result of a crime scene, the Coroner will notify the NAHC, which then will designate a Native American Most Likely Descendant (MLD) for the project (§ 5097.98 of the Public Resources Code). The designated MLD will have 48 hours from the time access to the property is granted to make recommendations concerning treatment of the remains. If the landowner does not agree with the recommendations of the MLD, the NAHC can mediate (§ 5097.94 of the Public Resources Code). If no 	<p>1. Include measure in contract documents</p> <p>2. Archaeological evaluation of potential cultural resources. If the find is not a cultural resource, work may resume. If the find is a cultural resource, a no-work radius is established, agencies are notified, and treatment measures are determined.</p> <p>3. Consult on finding and implement treatment measure, if applicable.</p>	<p>1. Contracting</p> <p>2. During ground disturbing activities</p> <p>3. During ground disturbing activities</p>	<p>1. Once</p> <p>2. Throughout ground disturbing activities</p> <p>3. As necessary</p>	<p>1. CVWD</p> <p>2. CVWD; Qualified Professional Archaeologist; Possible coordination with Riverside County Sheriff-Coroner, NAHC, and/or Most Likely Descendent</p> <p>3. CVWD; Qualified Professional Archaeologist; Tribal Monitor; Possible coordination with Riverside County Sheriff-Coroner</p>	CVWD	<p>1. _____</p> <p>2. _____</p> <p>3. _____</p>

<i>Mitigation Measures</i>	<i>Monitoring and Reporting Actions</i>	<i>Implementation Schedule</i>	<i>Monitoring Frequency</i>	<i>Responsible Party</i>	<i>Review and Approval by:</i>	<i>Verification: Status/ Date Completed/ Initials</i>
agreement is reached, the landowner must rebury the remains where they will not be further disturbed (§ 5097.98 of the Public Resources Code). This will also include either recording the site with the NAHC or the appropriate Information Center; using an open space or conservation zoning designation or easement; or recording a reinternment document with the county in which the property is located (AB 2641). Work may not resume within the no-work radius until the lead agencies, through consultation as appropriate, determine that the treatment measures have been completed to their satisfaction.						
Hydrology and Water Quality						
Mitigation Measure HYD-1: Stormwater Management Facilities. To mitigate for the alteration of existing drainage patterns that could result in erosion, siltation, flooding, polluted runoff, and/or impede or redirect flood flows, CVWD will consider surface water runoff increases from new impervious surfaces and drainage patterns during planning and design phases of each project. Each site would include design of improved stormwater management facilities onsite to avoid offsite discharge that would exceed the capacity of the stormwater system or cause flooding. A grading and drainage plan will be included in each improvement plan set for construction. The plan will identify and implement temporary and permanent BMPs and other construction controls to ensure that increases in stormwater flows off-site are minimized.	<ol style="list-style-type: none"> 1. Include measure in contract documents 2. Design and implement improved stormwater management facilities including a grading and drainage plan identifying temporary and permanent BMPs and other construction controls. 	<ol style="list-style-type: none"> 1. Contracting 2. Project Planning and Design 	<ol style="list-style-type: none"> 1. Once 2. Once 	<ol style="list-style-type: none"> 1. CVWD 2. CVWD 	CVWD	<ol style="list-style-type: none"> 1. _____ 2. _____