EXECUTIVE SUMMARY

ES.1 Introduction and Purpose of the EIR (Chapters 1 and 2)

Santa Margarita Water District (SMWD) has prepared this Draft Environmental Impact Report (EIR) to provide the public and responsible and trustee agencies with information about the potential effects on the local and regional environment associated with the construction and operation of the proposed Cadiz Valley Water Conservation, Recovery, and Storage Project (Project). This Draft EIR evaluates the environmental effects of the proposed Project and suggests mitigation measures to reduce any significant impacts to a less than significant level. This Draft EIR is intended to also identify and evaluate feasible alternatives to the proposed Project. The Draft EIR has been prepared pursuant to the California Environmental Quality Act (CEQA) of 1970 (as amended), codified at California Public Resources Code Sections 21000 et. seq., and the *CEQA Guidelines* in the Code of Regulations, Title 14, Division 6, Chapter 3. As Lead Agency under CEQA, SMWD may use this EIR to approve the proposed Project, make Findings regarding identified significant impacts, and if necessary, adopt a Statement of Overriding Considerations regarding these impacts.

ES.2 Project Summary (Chapter 3)

Project Overview

Cadiz Inc. (Cadiz) is a private corporation that owns approximately 34,000 mostly contiguous acres in the Cadiz and Fenner Valleys (Cadiz Property), which are located in the Mojave Desert portion of eastern San Bernardino County, California. Cadiz Inc., in collaboration with SMWD and other water providers participating in the Project (Project Participants), have collaboratively developed the Cadiz Valley Water Conservation, Recovery, and Storage Project to implement a comprehensive, long-term groundwater management program for the closed groundwater basin underlying its property that would allow for both the beneficial use of some of the groundwater and storage of imported surface water in the groundwater basin.

Underlying the Cadiz and Fenner Valleys and the adjacent Bristol Valley is a vast groundwater basin that holds an estimated 17 to 34 million acre-feet (MAF) of fresh groundwater. The Project area, which would be sited on Cadiz Property, is located at the confluence of the Fenner, Orange Blossom Wash, Bristol and Cadiz Watersheds (Watersheds), which span over 2,700 square miles.

Within this closed basin system, groundwater percolates and migrates downward from the higher elevations in the Watersheds and eventually flows to Bristol and Cadiz Dry Lakes. The Dry Lakes represent the low point in the closed watershed basin, meaning that all surface and groundwater within the surrounding Watersheds eventually flows down gradient to these Dry Lake areas and not beyond. Once the fresh groundwater reaches the Dry Lake areas, it evaporates, first mixing with the highly saline groundwater zone under the Dry Lakes and getting trapped in the salt sink, no longer fresh, suitable, or available to support freshwater beneficial uses. The portion that evaporates is lost from the groundwater basin and is therefore also unable to support beneficial uses.

Project Purpose

The California Constitution mandates maximizing the reasonable and beneficial use of water and the avoidance of waste. *The fundamental purpose of the Project* is to save substantial quantities of groundwater that are presently wasted and lost to evaporation by natural processes. In the absence of this Project, approximately 3 million acre-feet of groundwater presently held in storage between the proposed wellfield and the Dry Lakes would become saline and evaporate over the next 100 years. By strategically managing groundwater levels, the Project would conserve up to 2 million acre-feet of this water, retrieving it from storage before it is lost to evaporation. The conservation opportunity is unique and garners special emphasis. The proposed conservation is not dependent upon future rainfall, snow pack or the needs and demands of others: the groundwater is already in storage. Moreover, the conservation and resulting water supply augmentation can be achieved independently from the environmental and regulatory conditions that generally constrain the importation of water to Southern California. The geographic isolation of the groundwater makes it non-tributary to the Colorado River system, and therefore eligible for distinctive treatment under federal regulations that may unlock additional complementary storage opportunities, both within the Basin and in Lake Mead.

The Project makes available a reliable water supply for Southern California Project Participants, to supplement or replace existing supplies and enhance dry-year supply reliability. Both the State Water Project (SWP) and Colorado River water supplies are experiencing reductions from historic deliveries. As a result, Southern California water providers are looking for affordable new supplies to replace or augment current supplies and enhance dry-year supply reliability. The Project would optimize the reasonable and beneficial use of water within the aquifer system in a sustainable fashion—conserving water that would otherwise be wasted—to create a local water supply alternative for Southern California water providers.

The objectives of this Project are as follows:

- Maximize beneficial use of groundwater in the Bristol, Cadiz, and Fenner Valleys by conserving and using water that would otherwise be lost to brine and evaporation;
- Improve water supply reliability for Southern California water providers by developing a long term source of water that is not significantly affected by drought;

- Reduce dependence on imported water by utilizing a source of water that is not dependent upon surface water resources from the Colorado River or the Sacramento-San Joaquin Delta;
- Enhance dry-year water supply reliability within the service areas of SMWD and other Southern California water provider Project Participants;
- Enhance water supply opportunities and delivery flexibility for SMWD and other participating water providers through the provision of carry-over storage and, for Phase 2, imported water storage;
- Support operational water needs of the Arizona and California Railroad (ARZC) in the Project area;
- Create additional water storage capacity in Southern California to enhance water supply reliability;
- Locate, design, and operate the Project in a manner that minimizes significant environmental effects and provides for long-term sustainable operations.

Project Components

The proposed Project includes two distinct but related components:

- Groundwater Conservation and Recovery Component
- Imported Water Storage Component

Under the Groundwater Conservation and Recovery Component, an annual average of 50,000 acre-feet (AF) of groundwater would be pumped from the basin over a 50-year period for delivery to Project Participants in accordance with agreements with Cadiz Inc. and the Cadiz Groundwater Management, Monitoring and Mitigation Plan (GMMMP). The GMMMP has been developed to guide the long-term groundwater management of the basin for the Project. The level of groundwater pumping proposed under the Groundwater Conservation and Recovery Component is designed specifically to extract and conserve groundwater that would otherwise migrate to the Dry Lakes, enter the brine zone, and evaporate. The Groundwater Conservation and Recovery Component is analyzed at a project level in this Draft EIR in accordance with *CEQA Guidelines* Sections 15161 and 15378(a).

The full term of the Project would be 50 years for both components. In the event that circumstances beyond the control of the Project operator required additional time to complete contracted water deliveries, the Project term may be extended for a limited time under the terms of the agreements. If Project Participants elect to extend the Project for an additional term, new agreements and a new environmental analysis would be required.

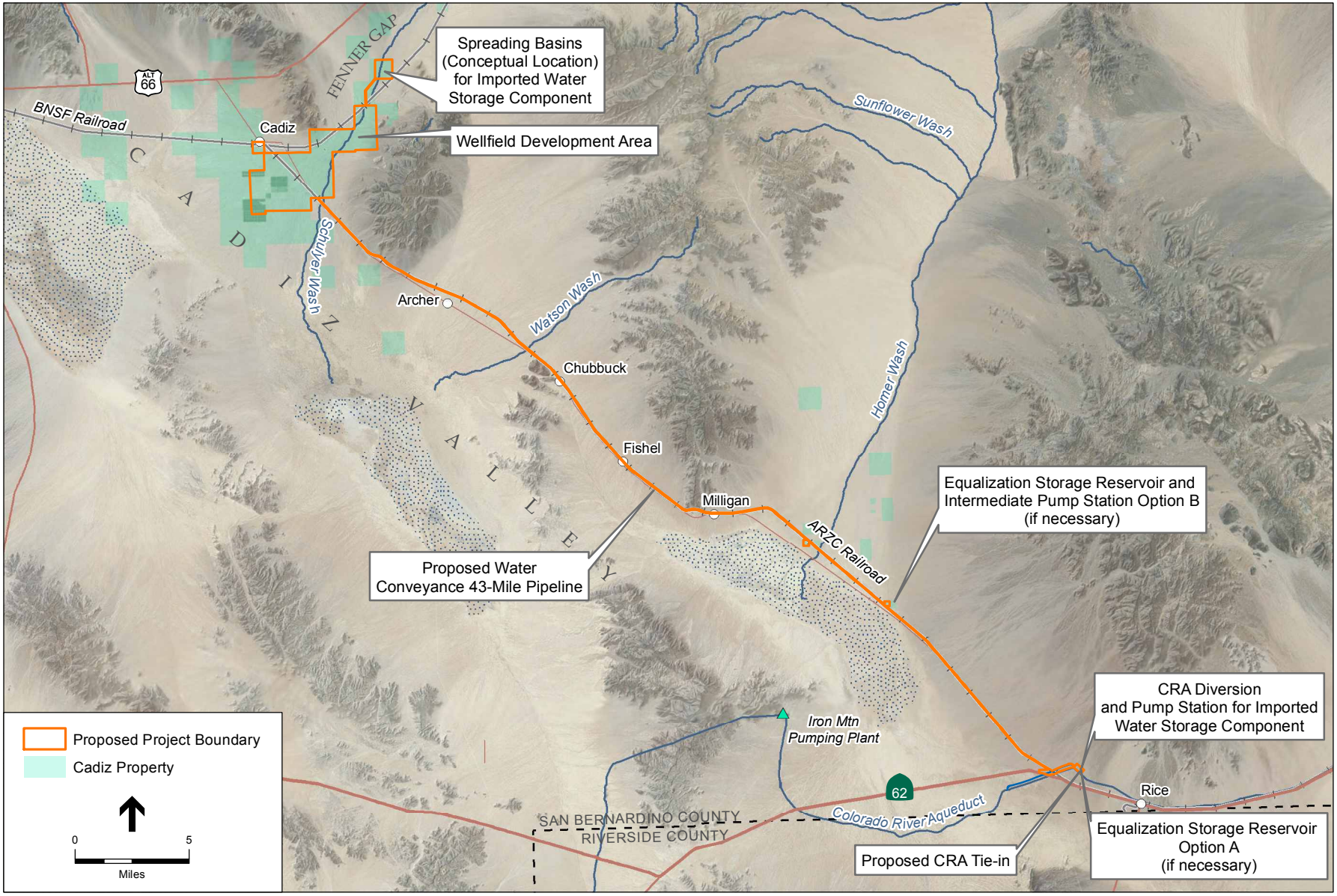
The facilities proposed for this component of the Project include a wellfield, manifold (piping) system, a 43-mile conveyance pipeline, monitoring features, other appurtenances and fire suppression mechanisms. The wellfield and manifold (piping) system would be constructed on

Cadiz Property to carry pumped groundwater to the conveyance pipeline, which would be constructed along the ARZC ROW and tie into the CRA, which would distribute water to Project Participants. A power conveyance system would be installed that would convey energy to the wellfield from natural gas engines or from electricity from the grid. In addition, to meet ARZC's fire suppression and operational water needs, fire hydrants would be installed along the conveyance pipeline at strategic locations along the railroad tracks (e.g., at bridge trestles). Withdrawal of water for this Project component would be limited to a maximum of 75,000 AFY of water in any given year and a total of 50,000 AFY on average over the 50-year term of the Project. These proposed Project facilities are identified in **Figure ES-1**. **Figure ES-2** provides a schematic overview of the proposed Project's groundwater extraction in the Fenner Gap.

As of the publication date of this Draft EIR, Project Participants include SMWD, Three Valleys Municipal Water District, Golden State Water Company, Suburban Water Systems, Jurupa Community Services District, and California Water Service Company, which cover some or all of the following five counties: San Bernardino, Riverside, Orange, Ventura, and Los Angeles (see **Figures ES-3** and **ES-4**). ARZC is also a Project Participant. The Project would serve the railroad's water demands along the ROW, including fire suppression, as well as providing ARZC access to the road along the pipeline that would be constructed as part of the Project. The Project would also serve additional railroad purposes that have been identified by ARZC which will be subject to additional environmental review.

The Imported Water Storage Component would allow participants to send surplus surface water supplies, when available, to the Project area to be recharged via spreading basins and held in storage until needed in future years. When needed, the stored surface water would be pumped out of the groundwater basin and returned to the appropriate Project Participant. The Imported Water Storage Component proposes to store up to 1 MAF. In addition, as part of the Imported Water Storage Component, one or more of the unused natural gas pipelines that exist in the Project area may be converted for use as a water conveyance facility. The purpose of this would be 1) to intertie the Project system to the State Water Project or other potential sources of surface water supply for import and storage at the Project site and/or 2) to connect to other potential Project Participants interested in storing water at the Project area. Initial study indicates that existing natural gas pipelines in the area could be converted for use as water conveyance pipelines with a maximum capacity of 30,000 AFY.

Where possible, the Imported Water Storage Component is analyzed at a project level (i.e., select facilities that are sufficiently defined), but because participants have not been identified and certain elements of the design are still under conceptual development, including the potential quantity and schedule for surface water import, spreading, storage, and extraction, the Imported Water Storage Component of the proposed Project is analyzed primarily at a programmatic level in this Draft EIR in accordance with *CEQA Guidelines* Section 15168. At a time when the Imported Water Storage Component is to be implemented, additional review will be conducted in accordance with *CEQA Guideline* Section 15161 and 15378(a).

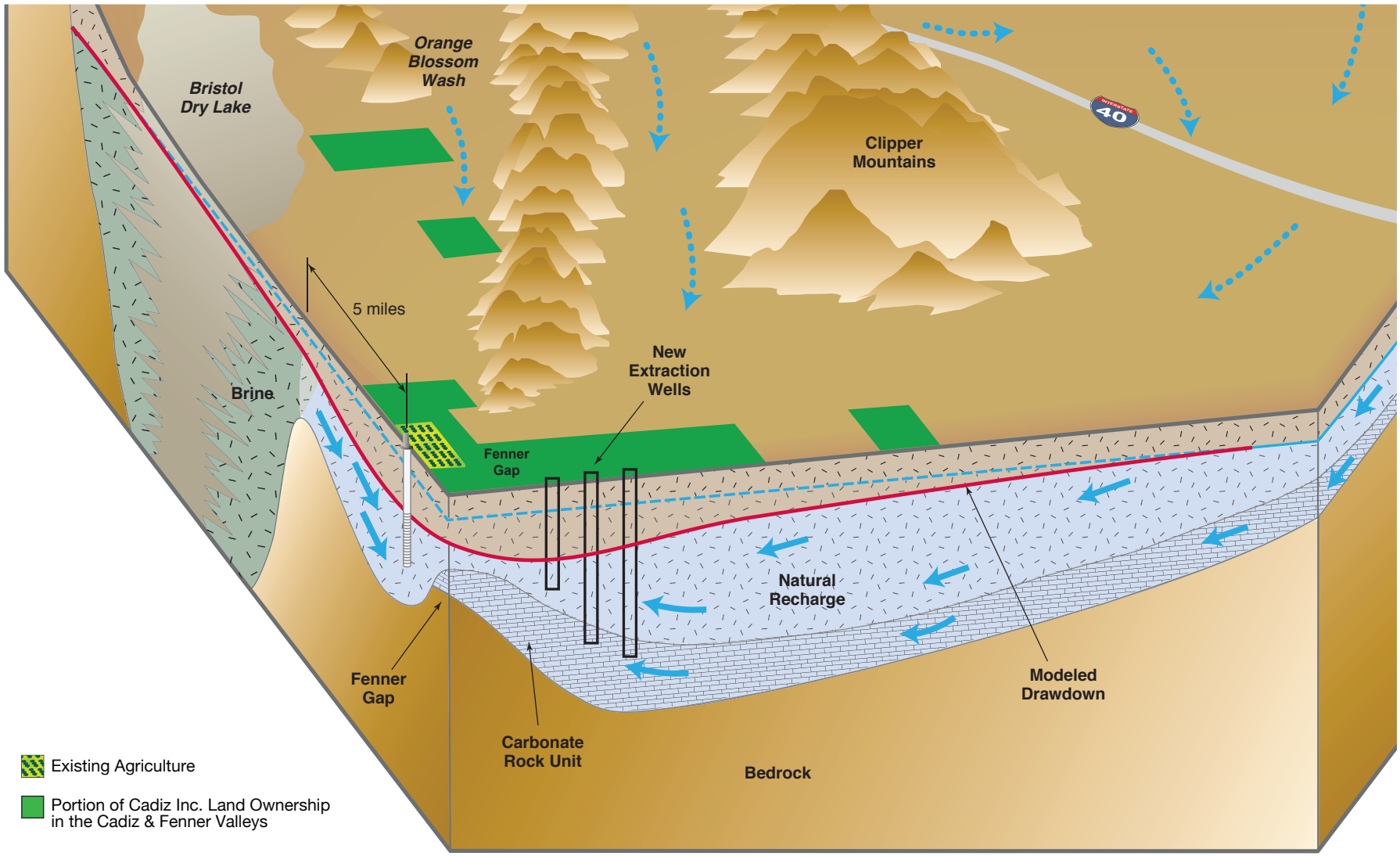


SOURCE: Bing Maps, 2011; ESRI, 2010; Cadiz Inc., 2011; and ESA, 2011

Cadiz Valley Water Conservation, Recovery, and Storage Project

Figure ES-1

Key Project Facilities



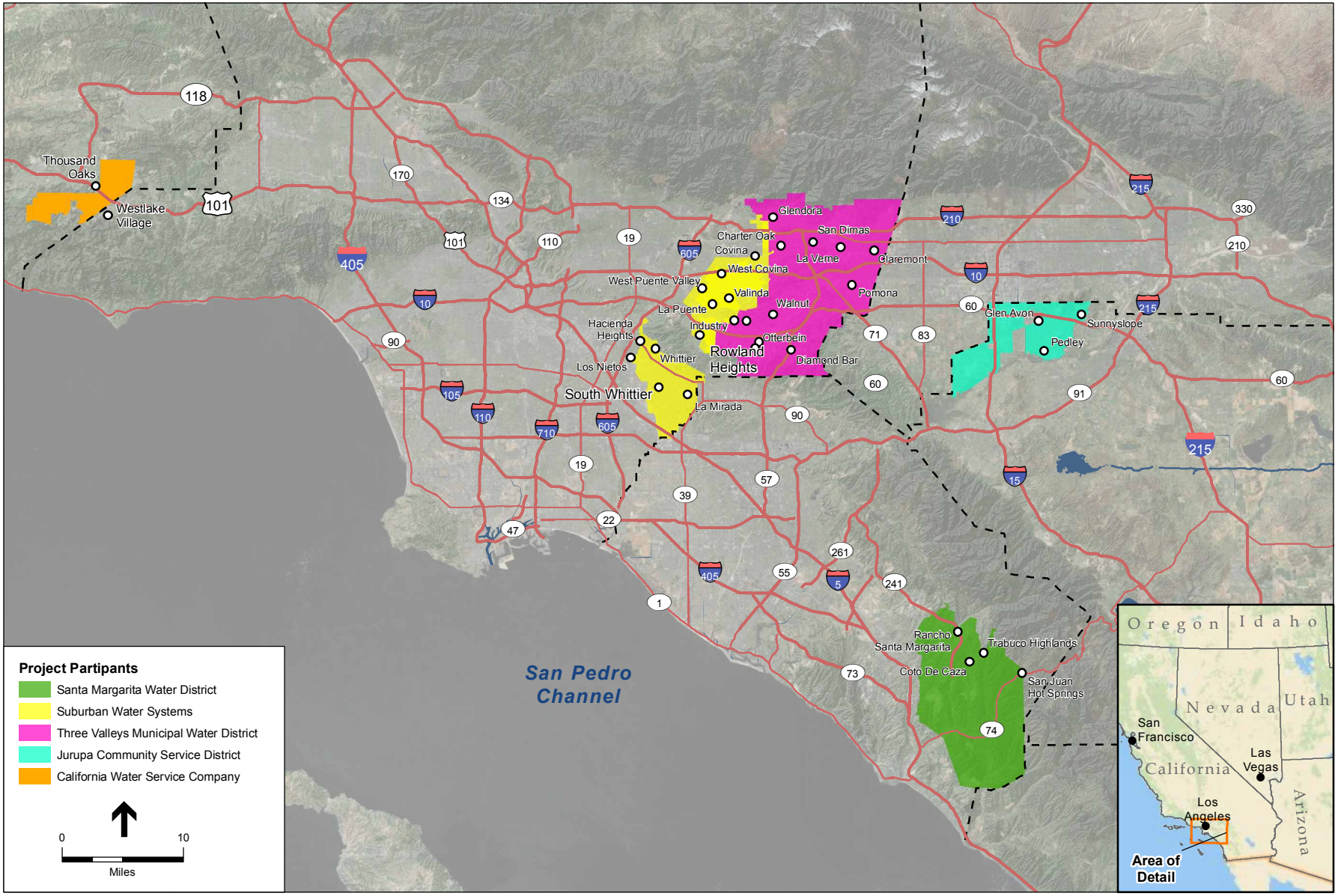
NOT TO SCALE

SOURCE: CH2M Hill, 2010; and ESA, 2011.

Cadiz Valley Water Conservation, Recovery, and Storage Project

Figure ES-2

Conceptual Surface and Groundwater Flow with Project after 50 Years

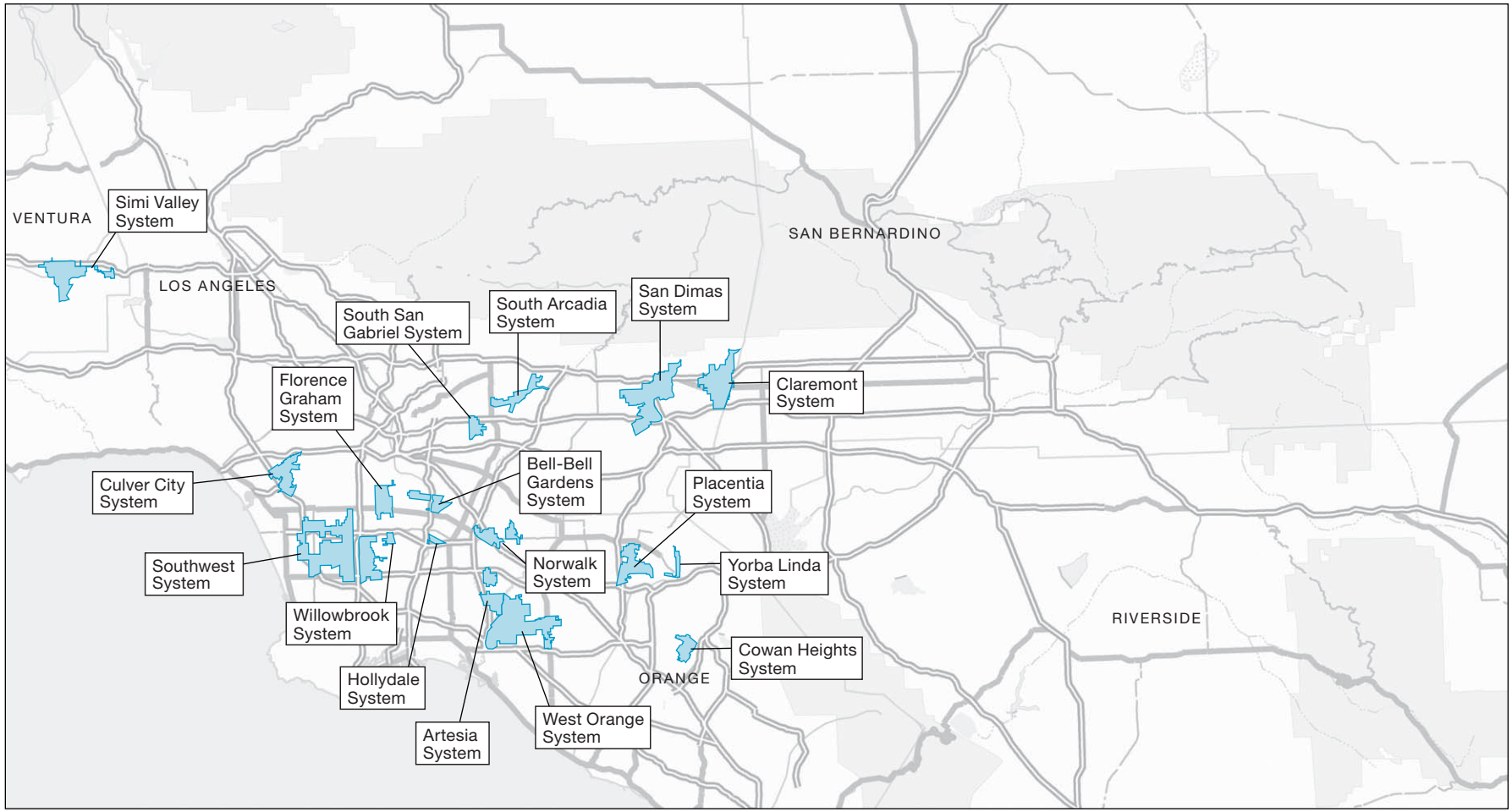


SOURCE: Bing Maps, 2011; ESRI, 2010; DeLorme, 2011; Cadiz Inc., 2011; and ESA, 2011

Cadiz Valley Water Conservation, Recovery, and Storage Project

Figure ES-3

Project Participants:
SMWD, Suburban, Three Valleys, Cal Water and JCSD
(See Figure 1-4 for Golden State)



SOURCE: Golden State Water Company; ESA, 2011.

Cadiz Valley Water Conservation, Recovery, and Storage Project

Figure ES-4

Participating Water Provider:
Golden State Water Company
Southern California Service Areas

ES.4 Environmental Effects (Chapters 4, 5, 6, and 8)

Approach to Analyzing Impacts

The Draft EIR analysis of the environmental impacts of the proposed Project is divided into the following chapters:

- Environmental Setting, Impacts, and Mitigation Measures (Chapter 4)
- Evaluation of Cumulative Impacts of the Project (Chapter 5)
- Growth-Inducement Potential and Indirect Effects of Growth (Chapter 6)
- Irreversible and Irretrievable Commitment of Resources (Chapter 8)

Chapter 4 describes the environmental setting and identifies impacts of the proposed Project on environmental resource areas. Significance criteria have been developed for each environmental resource analyzed in this Draft EIR. The significance criteria are defined at the beginning of each impact analysis section. Chapter 5 describes the incremental impacts of the proposed Project when considered together with closely related past, present, and reasonably foreseeable probable future projects consistent with *CEQA Guidelines* Section 15355(b). Chapter 6 analyzes the growth inducement potential of the proposed Project and the associated secondary effects of growth, as required by *CEQA Guidelines* Section 15126.2(d). Chapter 8 evaluates irreversible and irretrievable impacts of the proposed Project (*CEQA Guidelines* Section 15126.2(c)).

Impact Significance Determinations

The level of significance of impacts is categorized as follows:

Significant and Unavoidable: Mitigation may be recommended if feasible and if it would reduce impacts but impacts would remain significant with mitigation;

Less than Significant with Mitigation: Potentially significant impact that can be mitigated to a less than significant level;

Less than Significant: Mitigation is not required under CEQA but may be recommended; or

No Impact: Mitigation not required or recommended.

Summary of Impacts

Project impacts, recommended mitigation measures, and level of significance after mitigation are summarized for the Groundwater Conservation and Recovery Component and Imported Water Storage Component in **Tables ES-1** and **ES-2**, respectively, located at the end of this chapter. These tables list impacts and mitigation measures for each issue area, as necessary. Implementation of the proposed Project would result in two significant and unavoidable impacts:

construction air emissions would exceed thresholds of significance for NOx directly and cumulatively, and growth within the Project Participants' service areas would result in significant indirect secondary effects.

ES.5 Alternatives (Chapter 7)

Chapter 7 identifies alternatives considered by the Lead Agency, but rejected as infeasible, and provides a brief explanation of the reasons for their exclusion. This Chapter identifies and compares several facilities alternatives that examine project design modifications or different facility locations to evaluate whether different variations of the Project would result in greater, similar, or lesser impacts. Chapter 7 also evaluates two No Project Alternatives, one that compares against the existing baseline condition, and one that assesses the potential future condition based on existing land use development approvals. Finally, Chapter 7 also evaluates a Reduced Project Alternative that includes a 25-year operational period for the Groundwater Conservation and Recovery Component and 25 percent less water production.

With the exception of the No Project Alternatives, alternatives were included in the Draft EIR because of their apparent ability to meet most of the Project objectives, their ability to reduce one or more of the significant impacts associated with Project implementation, their potential feasibility, and their collective ability to provide a reasonable range of alternatives to foster informed decision-making and public participation. Analysis of the No Project Alternative is included as required by CEQA.

In addition, the EIR is required to identify an environmentally superior alternative. Of the Alternatives analyzed in this Draft EIR, the No Project Alternative would be considered the environmentally superior. The No Project Alternative would avoid all construction and operational impacts associated with the proposed Project, but the No Project Alternative would not meet any of the Project objectives. Per *CEQA Guidelines* Section 15126.6(e)(2), if the No Project Alternative is determined to be the environmentally superior alternative, an environmentally superior alternative must also be identified among the remaining alternatives.

Of the Project Facility Alternatives, the Existing Natural Gas Pipeline Alternative would be the environmentally superior alternative. Of the Operational Alternatives, the Reduced Project Alternative would be the environmentally superior alternative since groundwater levels would recover more quickly than under the other Operational Alternatives. The comparison of Alternatives and identification of the environmentally superior alternative is discussed in greater detail in Chapter 7 of this Draft EIR.

TABLE ES-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES – GROUNDWATER CONSERVATION AND RECOVERY COMPONENT

Environmental Impact	Mitigation Measures	Significance Conclusion
4.1 AESTHETICS		
Scenic Vistas Would the proposed Project have a substantial adverse effect on a scenic vista?	None required.	Less than significant.
Scenic Resources Would the proposed Project substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a State Scenic Highway?	None required.	No impact.
Visual Character Would the proposed Project substantially degrade the existing visual character or quality of the site and its surroundings?	None required.	Less than significant.
Light and Glare Would the proposed Project create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?	**AES-1:** Construction lighting shall be shielded or recessed so that light is directed downward and/or away from adjoining properties and public rights-of-way, and towards the construction site, with the goal of minimizing light trespass and glare on adjacent properties and containing light within the construction site to the maximum extent feasible. **AES-2:** Outdoor lighting shall be minimized and installed for safety and security purposes only. Outdoor lighting of Project facilities and access roads shall be shielded or recessed so that light is directed downward and/or away from adjoining properties and public rights-of-way and towards the Project site, with the goal of minimizing light trespass and glare on adjacent properties and containing light within the Project site to the maximum extent feasible.	Less than significant with mitigation.
4.2 AGRICULTURE AND FORESTRY RESOURCES		
Farmland Conversion Would the Project 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?	None required.	No impact.
Agricultural Zoning or Williamson Act Contract Would the proposed Project conflict with existing zoning for agricultural use or a Williamson Act contract?	None required.	Less than significant.

TABLE ES-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES – GROUNDWATER CONSERVATION AND RECOVERY COMPONENT

Environmental Impact	Mitigation Measures	Significance Conclusion
Forest Zoning Would the proposed Project 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)?	None required.	No impact.
Forest Land Conversion Would the proposed Project result in loss of forest land or conversion of forest land to non-forest use?	None required.	No impact.
Agriculture Uses Would the proposed Project 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?	None required.	Less than significant.
4.3 AIR QUALITY		
Consistency with Air Quality Management Plans Would the proposed Project conflict with or obstruct implementation of the applicable air quality plan?	Implement Mitigation Measures **AQ-1 through AQ-5.**	Less than significant with mitigation.
Air Quality Standards Would the proposed Project violate any air quality standard or contribute substantially to an existing or projected air quality violation?	**AQ-1:** Construction and operation of the proposed Project shall be conducted in compliance with applicable rules and regulations set forth by the Mojave Desert Air Quality Management District. **AQ-2:** The following dust control measures shall be implemented during construction: • All soil excavated or graded shall be sufficiently watered to prevent excessive dust. Watering shall occur as needed with complete coverage of disturbed soil areas. • Watering shall take place a minimum of twice daily on unpaved/untreated roads in areas with active operations. • Areas disturbed by clearing, earth moving, or excavation activities shall be minimized at all times. • Stockpiles of soil or other fine loose material shall be stabilized by watering or other appropriate method such as non-toxic soil binders to prevent wind-blown fugitive dust. • On-site vehicle speed on unimproved roads shall be limited to 15 miles per hour. • Streets adjacent to the Project site shall be kept clean and Project-related accumulated silt shall be removed.	Even after mitigation, NOx short-term construction emissions would remain significant and unavoidable. Long-term operational emissions, however, would be less than significant.

TABLE ES-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES – GROUNDWATER CONSERVATION AND RECOVERY COMPONENT

Environmental Impact	Mitigation Measures	Significance Conclusion
	AQ-3: The following measures shall be implemented during construction of the proposed Project: • All equipment shall be maintained as recommended by manufacturer's manuals. • Idling engines shall be shut down when not in use for over 30 minutes. • Electric equipment shall be used whenever possible in lieu of diesel or gasoline powered equipment. • All construction vehicles shall be equipped with proper emissions control equipment and kept in good and proper running order to substantially reduce NOx emissions. • On-road and off-road diesel equipment shall use diesel particulate filters if permitted under manufacturer's guidelines. • The Project shall develop a plan demonstrating that the off-road equipment (more than 50 horsepower) to be used in the construction Project (i.e., owned, leased, and subcontractor vehicles) would achieve a Project-wide fleet-average 20 percent NOx reduction and 45 percent PM reduction compared to the most recent CARB fleet average. Acceptable options for reducing emissions include the use of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, add-on devices such as particulate filters, and/or repowering off-road engines/equipment with Tier 2 or Tier 3 engines that operate within allowable emission ranges and as a result, would achieve emission reductions. **AQ-4**: All trucks hauling dirt, sand, soil, or other loose materials are to be covered. **AQ-5:** The Project Design Feature in Chapter 6.8 of the GMMMP shall be implemented to verify air quality. If changes in air quality occur that exceed baseline conditions over a five-year moving average, the following corrective measures shall be implemented: • Modification of Project operations to re-establish baseline level air quality levels. Modifications to Project operations would include one or more of the following: – Reduction in pumping from Project wells; – Revision of pumping locations within the Project wellfield; – Stoppage of groundwater extraction for a duration necessary to correct the predicted impact.	
Sensitive Receptors Would the proposed Project expose sensitive receptors to substantial pollutant concentrations?	None required.	Less than significant.
Objectionable Odors Would the proposed Project create objectionable odors affecting a substantial number of people?	None required.	Less than significant.
Cumulative Impact Would the proposed Project result in a cumulatively considerable air quality impact?	Implement Mitigation Measures **AQ-1 through AQ-5.**	Though operational emissions would not be cumulatively considerable, short term construction activities would

TABLE ES-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES – GROUNDWATER CONSERVATION AND RECOVERY COMPONENT

Environmental Impact	Mitigation Measures	Significance Conclusion
		exceed MDAQMD standards and would therefore result in a significant and unavoidable cumulative impact even after mitigation.
4.4 BIOLOGICAL RESOURCES		
Special-Status Wildlife Species Would the proposed Project have a substantial adverse effect, either directly or through habitat modifications, on any wildlife species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFG or USFWS?	**BIO-1**: Immediately prior to construction activities, pre-construction surveys shall be conducted to document all locations of burrows and desert tortoise sightings within all proposed disturbance areas that provide potential habitat for the species. The survey protocol shall be established in coordination with USFWS. **BIO-2**: A chain-link or tortoise fence (one-inch by two-inch welded wire mesh attached to the chain-link fence, with approximately two feet above-ground and one foot buried below ground) shall be installed to exclude small wildlife species from entering the active work areas in areas of documented occurrences of special-status ground dwelling wildlife as determined during pre-construction surveys by a qualified biologist or as directed by USFWS. When crossing drainages, these temporary fences must be designed and maintained to allow storm water runoff to flow past the construction site. **BIO-3**: A Desert Tortoise Avoidance and Protection Plan shall be developed and adopted in consultation with the USFWS and CDFG prior to construction. Elements of the plan shall include, but are not limited to the following: • A step-by-step protocol to be implemented whenever a desert tortoise is observed by construction or operational personnel. • A pre-determined and pre-approved off-site relocation area if there is a need to relocate individual species during the course of Project construction. • Flagging and delineation requirements for located burrows and areas with tortoise activity. • An education program for all construction employees. • Enforcement of speed limits and checking under vehicles for tortoise prior to leaving Project areas. • Biological monitoring requirements for all ground disturbance activities. • To prevent increased use of the Project areas by common ravens and coyotes, implementation of measures such as trash management, removal of unnatural sources of standing water, and other means. Drilling mud pits and water discharges will be controlled to minimize the duration of standing water at any one drilling site. **BIO-4**: If a desert tortoise is observed in the construction zone, construction activities shall be halted in the vicinity. A pre-approved qualified biologist, authorized by USFWS and/or CDFG to handle desert tortoise, shall be contacted immediately. Work shall only continue once the authorized biologist determines there is no risk to the desert tortoise. **BIO-5**: The pipeline shall be installed within previously disturbed areas of the easement to the extent feasible. During construction, previously undisturbed areas within the pipeline alignment that are not needed for construction shall be staked and flagged to prevent	Less than significant with mitigation.

TABLE ES-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES – GROUNDWATER CONSERVATION AND RECOVERY COMPONENT

Environmental Impact	Mitigation Measures	Significance Conclusion
	construction equipment access or disturbance in these areas. The cordoned off areas shall be flagged and monitored by a qualified biologist during construction activities. **BIO-6:** A special-status species and sensitive habitat restoration plan shall be prepared and approved by the USFWS and CDFG prior to construction for unavoidable temporary impacts on special-status plants and sensitive habitats. The plan would include, at a minimum, the following measures: • A salvage and replacement program for the top 12 inches of surface material and topsoil. The program shall identify soil preparation requirements, including grain size specifications that shall need to be engineered or amended on site to match to the greatest extent feasible the existing surface soil conditions. • A salvage and replanting program for perennial special-status species. • An invasive plant species maintenance, monitoring, and removal program. • Success criteria that establishes yearly thresholds for growth and reestablishment of habitat. • A five-year maintenance and monitoring plan to ensure successful implementation of the restoration plan. **BIO-7:** A habitat compensation plan would be prepared and implemented that includes at a minimum the following measure: • Purchase of compensatory mitigation lands or credits at a USFWS and CDFG approved conservation bank at a minimum 1:1 ratio for permanent habitat loss and 0.5:1 for temporary habitat loss (or that required by the USFWS and CDFG permit conditions) for preservation in perpetuity. **BIO-8:** Prior to construction, surveys for Mojave fringe-toed lizard shall be conducted by a qualified biologist within the sand dunes and sand fields habitats within the ARZC ROW. If Mojave fringe-toed lizards are identified in the construction zone, the area shall be fenced during construction as described in **BIO-2** to prevent lizards from entering the construction site. Once fenced, a qualified biologist shall trap the area for lizards and release captured lizards into adjacent suitable habitat. **BIO-9:** If construction and vegetation removal is proposed for the bird nesting period of February 1 through August 31, then pre-construction surveys for nesting bird species shall begin 30 days prior to construction disturbance with subsequent weekly surveys, the last one being no more than three days prior to work initiation. The surveys shall include habitat within 300 feet (500 feet for raptors) of the construction limits. Active nest sites located during the pre-construction surveys shall be avoided and a non-disturbance buffer zone established dependent on the species and in consultation with USFWS and CDFG. This buffer zone shall be delineated in the field with flagging, stakes, or construction fencing. Nest sites shall be avoided with approved non-disturbance buffer zones until the adults and young are no longer reliant on the nest site for survival as determined by a qualified biologist. **BIO-10:** A burrowing owl survey shall be conducted pursuant to the *Burrowing Owl Survey Protocol and Mitigation Guidelines* of the California Burrowing Owl Consortium (1993) or per the *Staff Report on Burrowing Owl Mitigation* prepared by CDFG (1995). At	

TABLE ES-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES – GROUNDWATER CONSERVATION AND RECOVERY COMPONENT

Environmental Impact	Mitigation Measures	Significance Conclusion
	a minimum, this survey shall include the following: • A pre-construction survey conducted by a qualified biologist within 30 days of the start of construction. This survey shall include two early morning surveys and two evening surveys to ensure that all owl pairs have been located. • If pre-construction surveys are undertaken during the breeding season (February 1st through July 31st) active nest burrows should be located within 250 feet of construction zones and an appropriate buffer around them (as determined by the Project biologist) shall remain excluded from construction activities until the breeding season is over. • During the non-breeding season (August 15th through January 31st), resident owls may be relocated to alternative habitat. Owls shall be encouraged to relocate from the construction disturbance area to off-site habitat areas and undisturbed areas of the Project site through the use of one-way doors on burrows. If ground squirrel burrows, stand pipes, and other structures that have been documented during pre-construction surveys as supporting either a nesting burrowing owl pair or resident owl are removed to accommodate the proposed Project, these structures and burrows shall be relocated or replaced on or adjacent to the Project site. Relocated and replacement structures and burrows shall be sited within suitable foraging habitat within one-half mile of the Project area. Suitable development-free buffers shall be maintained between replacement nest burrows and the nearest building, pathway, parking lot, or landscaping. The relocation of resident owls shall be in conformance with all necessary State and federal permits. **BIO-11:** A qualified biologist shall conduct focused pre-construction surveys no more than two weeks prior to construction for potential American badger dens. If no potential American badger dens are present, no further mitigation is required. If potential dens are observed, the following measures are required to avoid potential adverse effects to the American badger: • If the qualified biologist determines that potential dens are inactive, the biologist shall excavate these dens by hand with a shovel to prevent badgers from re-using them during construction. • If the qualified biologist determines that potential dens may be active, the entrances of the dens shall be blocked with soil, sticks, and debris for three to five days to discourage use of these dens prior to Project disturbance. The den entrances shall be blocked to an incrementally greater degree over the three- to five-day period. After the qualified biologist determines that badgers have stopped using active dens within the Project boundary, the dens shall be hand-excavated with a shovel to prevent re-use during construction. • Construction activities shall not occur within 30 feet of active badger dens. **BIO-12**: Prior to construction activities, winter and spring surveys shall be conducted to determine the nature of trestle use by pallid bats. Surveys shall follow the appropriate site-specific protocol as determined in coordination with CDFG. **BIO-13:** If a special-status natal bat roost site is found within the limits of construction during pre-construction surveys, the roosts shall be staked, flagged, fenced, or otherwise clearly delineated. Roosts shall be avoided with non-disturbance buffer zones established	

TABLE ES-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES – GROUNDWATER CONSERVATION AND RECOVERY COMPONENT

Environmental Impact	Mitigation Measures	Significance Conclusion
	by a qualified biologist in consultation with the USFWS and CDFG until the site is no longer in active use as a natal roost. Implement Mitigation Measures **AES-1** and **AES-2**.	
Special-Status Plant Species Would the proposed Project have a substantial adverse effect, either directly or through habitat modifications, on any plant species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFG or USFWS?	**BIO-14**: Prior to construction, construction zone limits shall be marked by a qualified biologist and shall be staked, flagged, fenced, or otherwise clearly delineated to ensure that the construction zone is limited to minimize impacts on special-status plant species. These limits shall be identified on the construction drawings. No earth-moving equipment shall be allowed outside demarcated construction zones unless pre-approval is obtained from a qualified biologist.	Less than significant with mitigation.
Sensitive Habitat Would the proposed Project have a substantial adverse impact on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFG or USFWS?	Implement Mitigation Measures **BIO-5** and **BIO-6.**	Less than significant with mitigation.
Wetlands Would the proposed Project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	**BIO-15:** A Waters of the State Mitigation Plan shall be prepared to include with RWQCB and CDFG permit applications. Conditions of the Mitigation Plan shall include at a minimum the following measures: • measures to divert flows during construction, • measures to minimize construction footprint within washes, • measures to minimize erosion, • measures to minimize discharge of contaminants through proper storage of chemicals and vehicle maintenance, and • post-construction site restoration performance standards.	Less than significant with mitigation.
Wildlife Movement Would the proposed Project interfere substantially with the movement of any native resident or wildlife species or with established native resident or migratory native wildlife corridors, or impede the use of wildlife nursery sites?	None required.	Less than significant.
Local Policy or Ordinance Would the proposed Project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	**BIO-16:** Prior to commencement of ground disturbance activities for any component of the proposed Project, a qualified biologist/arborist shall provide an inventory of the number and size of protected species within the proposed Project's impact areas. The biologist/arborist shall mark any smoke tree (*Dalea spinosa*), mesquites (*Prosopis* spp.), all species of the family Agavaceae (i.e., yucca, century plant, and nolina), creosote rings (10 feet or greater in diameter), and Joshua trees within the construction zone. Removal of these plants shall be avoided if possible. **BIO-17:** If avoidance of the species listed in **BIO-16** is not possible, these species shall	Less than significant with mitigation.

TABLE ES-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES – GROUNDWATER CONSERVATION AND RECOVERY COMPONENT

Environmental Impact	Mitigation Measures	Significance Conclusion
	be moved or replanted.	
Habitat Conservation Plan Would the proposed Project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional or state habitat conservation plan?	None required.	Less than significant.
4.5 CULTURAL RESOURCES		
Historical Resources Would the proposed Project cause a substantial adverse change in the significance of a historical resource as defined in *CEQA Guidelines* Section 15064.5?	**CUL-1:** A qualified archaeologist, defined as an archaeologist meeting the Secretary of the Interior's Standards for professional archaeology,[1] shall be retained to carry out all mitigation measures related to archaeological resources. **CUL-2:** The construction zone shall be narrowed or otherwise altered to avoid all significant historical resources where feasible. Significant or unevaluated cultural resources within 50 feet of the construction zone shall be marked with exclusion markers to ensure avoidance. In the case of resources CA-SBR-3282H and CA-SBR-3233H, a 50-foot buffer shall be established outside of recorded site boundaries as an added protective measure to protect historic cemeteries. Protective fencing shall not identify the protected areas as cultural resource areas in order to discourage unauthorized disturbance or collection of artifacts. **CUL-3:** A long-term management plan shall be developed for those significant historical resources or portion(s) of resources that can be avoided during Project construction, in order to minimize future impacts during Project operation and maintenance. **CUL-4:** If avoidance of significant historical resources is not feasible, prior to any Project-related ground disturbing activities, a detailed treatment plan shall be prepared and implemented by a qualified archaeologist. The treatment plan shall include a research design and a scope of work for data recovery of the portion(s) of the significant resource(s) to be impacted by the Project. Treatment for most resources shall consist of (but would not be not limited to) sample excavation, surface artifact collection, site documentation, and historical research, with the aim to target the recovery of important scientific data contained in the portion of the significant resource to be impacted by the Project. The treatment plan shall include provisions for analysis of data in a regional context, reporting of results within a timely manner, and curation of artifacts and data at an approved facility. **CUL-5:** Prior to construction, a qualified archaeologist shall be retained to carry out a Phase 1 cultural resources survey in those portions of the Project area (including but not limited to: the wellfield, CRA tie-in Options 2a and 2b, and any access roads, staging areas, borrow areas, and any other proposed areas of potential ground disturbance) not previously surveyed within the past 5 years. The Phase 1 survey shall identify and evaluate the significance of any potentially eligible resources that may be directly or indirectly impacted by the proposed Project, and shall take Native American comments	Less than significant with mitigation.

[1] Department of the Interior, *Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation (As Amended and Annotated): Professional Qualification Standards*, http://www.nps.gov/history/local-law/arch_stnds_9.htm, accessed November 2010.

TABLE ES-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES – GROUNDWATER CONSERVATION AND RECOVERY COMPONENT

Environmental Impact	Mitigation Measures	Significance Conclusion
	concerning viewshed impacts into consideration. The Phase 1 Survey effort shall be documented in a Phase 1 Cultural Resources Survey report. Resources determined eligible for listing shall be subject to Mitigation Measures **CUL-1 through CUL-4** and **CUL-6**. All significant cultural resources identified in the wellfield area during surveys shall be avoided. **CUL-6:** Prior to construction, an archaeological monitor shall be retained to monitor all ground-disturbing activities, including brush clearance and grubbing, within 100 feet of all significant historical resources. The monitor shall work under the supervision of the qualified archaeologist. The duration and timing of monitoring shall be determined by the qualified archaeologist in consultation with the lead agency and based on the grading plans. In the event that cultural resources are unearthed during ground-disturbing.	
Archeological Resources Would the proposed Project cause a substantial adverse change in the significance of a unique archaeological resource pursuant to *CEQA Guidelines* Section 15064.5?	**CUL-7:** If archaeological resources are encountered, all activity in the vicinity of the find shall cease until it can be evaluated by a qualified archaeologist. If the qualified archaeologist determines that the resources may be significant, he or she will develop an appropriate treatment plan for the resources. Appropriate Native American representatives shall be consulted in determining appropriate treatment for unearthed cultural resources if the resources are prehistoric or Native American in nature. In considering any suggested mitigation proposed by the archaeologist in order to mitigate impacts to archaeological resources, avoidance will be determined necessary and feasible in light of factors such as the nature of the find, Project design, costs, and other considerations. If avoidance is infeasible, other appropriate measures (e.g., data recovery) will be instituted. Work may proceed on other parts of the Project site while mitigation for cultural resources is being carried out. Implement Mitigation Measures **CUL-1 through CUL-6.**	Less than significant with mitigation.
Paleontological Resources Would the proposed Project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	**CUL-8:** Prior to construction, those portions of the Project area (including the wellfield, CRA tie-in Options 2a and 2b, access roads, staging areas, and borrow areas) not previously surveyed within the past 5 years, shall be surveyed by a qualified vertebrate paleontologist, defined as one holding an advanced degree in paleontology, biology, or a related discipline, and having at least five years of professional experience. If paleontological resources are encountered, they shall be documented or recovered, and curated, as appropriate, prior to the start of construction. The evaluation will be documented in a report to be submitted for review and approval by the lead agency prior to the start of construction. The report shall also be submitted to the San Bernardino County Museum. **CUL-9:** Prior to the start of any earth moving activity, a qualified vertebrate paleontologist shall be retained. The paleontologist shall prepare a Paleontological Mitigation and Monitoring Plan (PMMP) that shall be based on prior paleontological evaluations, including the results of the paleontological survey as described in Mitigation Measure **CUL-8**, and shall address pre-construction salvage and reporting; pre-construction contractor sensitivity training; procedures for paleontological resources monitoring including the identification of specific paleontological monitoring locations as defined by areas where Pleistocene age sediments may be impacted during construction; microscopic examination of samples where applicable; the evaluation, recovery, identification, and curation of fossils; and the preparation of a final mitigation report.	Less than significant with mitigation.

TABLE ES-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES – GROUNDWATER CONSERVATION AND RECOVERY COMPONENT

Environmental Impact	Mitigation Measures	Significance Conclusion
	CUL-10: All earth-moving activities within those formations identified as sensitive within the PMMP shall be monitored on a full-time basis, unless the paleontologist determines that sediments are previously disturbed or there is no reason to continue monitoring in a particular area due to other depositional factors which would make fossil preservation unlikely or deemed scientifically insignificant. In the event fossils are exposed during earth moving, construction activities shall be redirected to other work areas until the procedures outlined in the PMMP have been implemented or the paleontologist determines work can resume in the vicinity of the find. When fossils are discovered, they and associated data shall be collected quickly and professionally. Fossil salvage procedures shall include the collection of bulk matrix samples if scientifically significant microfossils are believed to be present based on field evidence. All fossils collected during monitoring shall be transferred to a secure facility for laboratory preparation and identification. Laboratory preparation shall include stabilization, matrix removal, and conservation of individual fossil specimens, as well as screenwashing and picking of bulk matrix samples. Fossils shall be prepared to the point of curation and identified by technical specialists, as needed, to the lowest possible taxonomic level. At the end of the Project, the paleontologist shall prepare a report that includes a description and inventory list of recovered fossil materials; a map showing the location of paleontological resources found in the field; determinations of sensitivity and significance; and a statement that Project impacts to paleontological resources have been mitigated. The results of the paleontological surveys, construction monitoring, and subsequent laboratory work shall be compiled in a final paleontological mitigation report authored by the qualified paleontologist for the Project. The final report shall include all Project data and a copy of the receipt of specimens from the paleontological repository. Following preparation, the fossils and associated data and a copy of the final paleontological mitigation report shall be transferred to a public museum (paleontological repository) where they will be available for the benefit of current and future generations.	
Human Remains Would the proposed Project could disturb any human remains, including those interred outside of formal cemeteries?	**CUL-11:** If human remains are uncovered during Project construction, all work in the vicinity of the find shall be halted and the County Coroner will be contacted to evaluate the remains and follow the procedures and protocols set forth in Section 15064.5 (e)(1) of the *CEQA Guidelines*. If the County Coroner determines that the remains are Native American, the NAHC shall be contacted, in accordance with Health and Safety Code Section 7050.5, subdivision (c) and Public Resources Code 5097.98 (as amended by AB 2641). Per Public Resources Code 5097.98, the landowner shall ensure that the immediate vicinity, according to generally accepted cultural or archaeological standards or practices, where the Native American human remains are located, is not damaged or disturbed by further development activity until the landowner has discussed and conferred, as prescribed in this Section (PRC 5097.98) with the most likely descendents taking into consideration their recommendations, and developing a treatment plan, taking into account the possibility of multiple human remains. Implement Mitigation Measures **CUL-2**, **CUL-3**, and **CUL-6**.	Less than significant with mitigation.
Indian Trust Assets Would the proposed Project directly involve the use of land or sites of religious or cultural	None required.	No impact.

TABLE ES-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES – GROUNDWATER CONSERVATION AND RECOVERY COMPONENT

Environmental Impact	Mitigation Measures	Significance Conclusion
importance to Native Americans? Would the proposed Project affect the use of reservation lands or sites of religious or cultural importance to Native Americans?		
4.6 GEOLOGY AND SOILS		
Seismic Impacts from Surface Fault Rupture, Ground Shaking, Landslides, or Liquefaction Would the proposed Project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: • 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)?; • Strong seismic ground shaking?; • Seismic-related ground failure, including liquefaction?; • Landslides?	None required.	Less than significant.
Soil Erosion and Loss of Topsoil Would the proposed Project result in substantial soil erosion or the loss of topsoil?	Implement Mitigation Measures **HYDRO-1** and **BIO-6**.	Less than significant with mitigation.
Geologically Unstable Area Would the proposed Project 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 on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	**GEO-1:** The project design features in Chapter 6.3 of the GMMMP shall be implemented to address the potential impact for land subsidence. If land subsidence is observed at rates that are greater than projected by the groundwater flow simulation model for an equivalent elapsed time, or if a change in the ground surface elevation of more than 0.5 feet within the Project area occurs, or if subsidence of more than one inch vertically over 62 feet horizontally within the vicinity of railroad tracks occurs, the following shall occur: • Implement the corrective measures that involve modification of Project operations to actively arrest subsidence through one or more of the following: – Reduction in pumping from Project wells; – Revision of pumping locations within the Project wellfield; – Stoppage of groundwater extraction for a duration necessary to correct the predicted impact; or – Repair of any structures damaged as a result of subsidence attributable to Project operations.	Less than significant with mitigation.

TABLE ES-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES – GROUNDWATER CONSERVATION AND RECOVERY COMPONENT

Environmental Impact	Mitigation Measures	Significance Conclusion
Expansive or Corrosive Soils Would the proposed Project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	None required.	Less than significant.
Soil Suitability for Septic System Would the proposed Project 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 waste water?	None required.	No impact.
4.7 GREENHOUSE GAS EMISSIONS		
Greenhouse Gas Emissions Would the proposed Project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment? Would the proposed Project conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHG (including AB 32, the California Global Warming Solutions Act of 2006, and the AB 32 Scoping Plan)?	**GHG-1:** Within 90 days of completion of construction of the Groundwater Conservation and Recovery Component of the Project, carbon offset credits shall be purchased from the Climate Registry, or other source that is approved by CARB as being consistent with the policies and guidelines of the California Global Warming Solution Act of 2006 (AB 32), or that is approved by a local or regional agency with jurisdiction over or within San Bernardino County as local emissions credits under a GHG reduction plan or similar program, in sufficient quantity to reduce the Project's first year total (direct plus indirect) GHG emissions below 10,000 $MTCO_2e$ per year. The first year offsets identified in the binding agreement shall be purchased and retired no later than 12 calendar months from completion of the first full year of operation. The estimated amount of offsets required is 18,153 $MTCO_2e$ per year (i.e., 28,153 – 10,000 $MTCO_2e$ per year) if the wellfield and intermediate pump station are powered by natural gas. This volume may be reduced if less power is needed, solar power is provided, or diesel powered wells are retired at the Cadiz Ranch that would count as an offset. If electricity from the grid is used, the required offsets are estimated to be 5,810 $MTCO_2e$ per year (i.e., 15,810 – 10,000 $MTCO_2e$ per year). Since offsets for off-site electricity generation is the responsibility of the energy generators, the Project may obtain verification of these offsets or purchase additional offsets as needed. A GHG inventory shall be completed which will be verified by an accredited third-party verification body and reported to the Climate Registry. The Applicant shall purchase and retire such additional carbon offset credits (due to a net increase in emissions from the first full year of operations) as may be needed each year to ensure that the Project's total (direct plus indirect) GHG emissions are offset below the benchmark of 10,000 $MTCO_2e$ above existing 2011 conditions.	Less than significant with mitigation.
4.8 HAZARDS AND HAZARDOUS MATERIALS		
Routine Transportation, Use, Disposal or Release of Hazardous Materials Would the proposed Project create a significant hazard to the public or the environment through the routine transport, use, or disposal of	**HAZ-1:** On-site materials storage, fueling, and vehicle maintenance areas shall be equipped with secondary containment and spill containment equipment. Storage, handling, and disposal of hazardous materials shall comply with applicable regulations including submittal of a Business Plan to the County Fire Department.	Less than significant with mitigation.

TABLE ES-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES – GROUNDWATER CONSERVATION AND RECOVERY COMPONENT

Environmental Impact	Mitigation Measures	Significance Conclusion
hazardous materials? Would the proposed Project 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?		
Hazardous Materials Use Near Schools Would the proposed Project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	None Required.	No impact.
Hazardous Materials Sites Would the proposed Project be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment?	**HAZ-2:** If excavation uncovers contaminated materials, excavation activities shall cease in the contaminated area. Soil samples shall be collected to characterize the soils and contamination. The CUPA shall be notified of the sample results. The construction contractor shall stockpile contaminated soils on plastic sheeting as necessary to prevent releasing contamination into the ground and shall ultimately dispose of the materials in coordination with the CUPA in compliance with hazardous material regulations. **HAZ-3:** Prior to installation of the Project elements within 250 feet of the Cadiz Sonic Lake Target No. 5 and No. 9 areas, the USACE shall be requested to clear the proposed locations for the potential presence of unexploded ordnance from historical military uses. In the event that the USACE encounters unexploded ordnance, the USACE is obligated to remove the unexploded ordnance under their ongoing investigations.	Less than significant with mitigation.
Airport Hazards Would the proposed Project result in a safety hazard for people residing or working in the Project area for a project within the vicinity of a private airstrip or within an airport land use plan?	None required.	Less than significant.
Emergency Response Plans Would the proposed Project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	None required.	No impact.
Grassland and Wildland Fires Would the proposed Project expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	None required.	Less than significant.

TABLE ES-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES – GROUNDWATER CONSERVATION AND RECOVERY COMPONENT

Environmental Impact	Mitigation Measures	Significance Conclusion
4.9 HYDROLOGY AND WATER QUALITY		
Impacts to Water Quality Standards or Waste Discharge Requirements Would the proposed Project result in a significant impact by degrading water quality or violating waste discharge requirements?	**HYDRO-1:** A construction Storm Water Pollution Prevention Plan shall be prepared and included in construction specifications for the Project. At a minimum, the plan shall include the following required Best Management Practices or equivalent measures: • Install temporary sediment fences or straw waddles at stream crossings or washes to prevent erosion and sedimentation during construction, including at each ARZC railroad trestle along the pipeline alignment. • Establish designated fueling areas equipped with secondary containment, • Require drip-pans under all idle equipment on the construction sites, • Ensure that spill prevention kits are present at all construction sites. **HYDRO-2:** Project Design Feature 6.4 found in Chapter 6.4 of the GMMMP shall be implemented to address the potential impacts for the migration of the saline/freshwater water interface to adversely affect groundwater quality. If monitored increases in TDS result in impairment to beneficial uses of groundwater by overlying land owners, one or more of the following corrective measures shall be implemented: • Deepen or otherwise improve the efficiency of the impacted well(s); or • Blend impacted well water with another local source; or • Construct replacement well(s); or • Pay the impacted well owner for any increased material pumping costs incurred by the well owner; or • Modify Project operations until adverse effects are no longer present at the affected well(s). Modification to Project operations would include one or more of the following: – Reduction in pumping from Project wells; or – Revision of pumping locations within the Project wellfield; or – Stoppage of groundwater extraction for a duration necessary to correct the predicted adverse effect on existing wells; or • Installation of an injection or extraction well(s) in conjunction with appropriate injection of lower-TDS water or extraction of higher-TDS water to manage the migration of high-TDS water from the Dry Lakes. **HYDRO-3:** Project design features in Chapter 6.2 of the GMMMP shall be implemented to address potential impacts to Third Party wells. If a written complaint by a well owner is received regarding decreased groundwater production yield, degraded water quality, or increased pumping costs submitted by neighboring landowners or the salt mining operators on the Bristol and Cadiz Dry Lakes, following corrective measures shall be implemented: 1) Arrange for an interim water supply to the affected party as necessary. 2) Implement additional corrective measures that include one or more of the following	Less than significant with mitigation.

TABLE ES-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES – GROUNDWATER CONSERVATION AND RECOVERY COMPONENT

Environmental Impact	Mitigation Measures	Significance Conclusion
	actions: • Deepen or otherwise improve the efficiency of the impacted well(s); or • Blend impacted well water with another local source; or • Construct replacement well(s); or • Pay the impacted well owner for any increased material pumping costs incurred by the well owner; or • Modify Project operations until adverse effects are no longer present at the affected well(s). Modification to Project operations would include one or more of the following: – Reduction in pumping from Project wells; or – Revision of pumping locations within the Project wellfield; or – Stoppage of groundwater extraction for a duration necessary to correct the predicted adverse effect on existing wells.	
Impacts to Groundwater Supplies or Groundwater Recharge Would the proposed Project result in a significant impact by substantially depleting groundwater supplies or interfering substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a significant lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	Implement Mitigation Measure **HYDRO-3.**	Less than significant with mitigation.
Impacts to Drainage Patterns Would the proposed Project result in a significant impact by altering the existing drainage patterns of the area and the courses of streams in a manner that could result in substantial erosion or siltation on- or off-site, or result in substantially increasing the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	**HYDRO-4:** Construction plans shall be prepared that use standard best management practices (BMPs) to control drainage around the Project infrastructure. The BMPs shall include placing well pads and above-ground appurtenant facilities outside of visible drainages; and grading well pads to disperse runoff from the site in a manner that minimizes scour potential of storm water. Additional BMPs include the use of physical barriers to prevent erosion and siltation straw wattles, hay bales, setbacks and buffers, and other similar methods that reduce the energy in surface water flow.	Less than significant with mitigation.
Impacts to Housing or Structures Relative to Flooding, Seiche, Tsunami, or Mudflow Would the proposed Project place housing or structures in locations that would be subject to flooding, seiches, tsunamis, or mudflows?	Implement Mitigation Measure **HYDRO-4**.	Less than significant with mitigation.

TABLE ES-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES – GROUNDWATER CONSERVATION AND RECOVERY COMPONENT

Environmental Impact	Mitigation Measures	Significance Conclusion
4.10 LAND USE AND PLANNING		
Divide and Established Community Would the proposed Project physically divide an established community?	None required.	Less than significant.
Consistency with Land Use Plans Would the proposed Project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the General Plan, Specific Plan, Local Coastal Program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	None required.	Less than significant.
Habitat Conservation Plans or Natural Community Conservation Plans Would the proposed Project conflict with any applicable habitat conservation plan or natural community conservation plan?	None required.	No impact.
Socioeconomics Would the proposed Project cause an adverse affect on economic or socioeconomic conditions to an extent that would result in substantial physical environmental effects to the Project area (e.g. urban decay) or cause physical changes that are determined to be significant due to economic or social effects (e.g. divide a community)?	None required.	Beneficial.
Environmental Justice Would the proposed Project cause a disproportionately high and adverse human health or environmental impact on minority populations or low-income populations?	None required.	No impact.
4.11 MINERAL RESOURCES		
Loss of Availability of Known Mineral Resources Would the proposed Project 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?	**MIN-1**: PDF 6.5 shall be implemented to address the potential impact for groundwater level drawdown on existing salt production operations. If changes in groundwater levels occur that are larger than projected by the groundwater model simulations or if changes occur in groundwater or brine water levels that are greater than 50 percent of the water column above the intake of any of salt mining companies' wells in comparison to pre-operational static levels in wells at the margins of the dry lakes, one or more of the following actions shall be implemented: • Reduction in pumping from Project wells; or	Less than significant with mitigation.

TABLE ES-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES – GROUNDWATER CONSERVATION AND RECOVERY COMPONENT

Environmental Impact	Mitigation Measures	Significance Conclusion
	• Revision of pumping locations within the Project wellfield; or • Stoppage of groundwater extraction for a duration necessary to correct the predicted impact; or • Installation of injection wells to mitigate the impact, or • Compensation to mining operators for the additional costs of pumping.	
Loss of Availability of Locally Important Mineral Resources Would the proposed Project 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?	None required.	No impact.
4.12 NOISE		
Sensitive Receptors Would the proposed Project expose persons to or generate noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	None required.	Less than significant.
Ground-Borne Vibrations and Ground-borne Noise Would the proposed Project expose persons to or generate excessive ground-borne vibration or ground-borne noise levels?	None required.	Less than significant.
Ambient Noise Levels Would the proposed Project create a substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project? Would the proposed Project create a substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project?	None required.	Less than significant.
Exposure to Excessive Noise Levels Would the proposed Project expose people residing or working in the Project area to excessive noise levels 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?	None required.	Less than significant.

TABLE ES-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES – GROUNDWATER CONSERVATION AND RECOVERY COMPONENT

Environmental Impact	Mitigation Measures	Significance Conclusion
Would the proposed Project expose people residing or working in the Project area to excessive noise levels if the Project is located in the vicinity of a private airstrip?		
4.13 PUBLIC SERVICES AND UTILITIES		
Public Services Would the proposed Project 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 listed below? • Fire protection; • Police protection; • Schools; • Parks; or • Other public facilities.	None required.	Less than significant.
Expansion of New Wastewater Facilities and Compliance with Wastewater Requirements Would the proposed Project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board? Would the proposed Project require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	None required.	Less than significant.
Storm Water Drainage Facilities Would the proposed Project require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	**UTIL-1**: Storm water drainages traversed by the water conveyance pipeline alignment shall be returned to pre-construction conditions. Existing structures such as storm flow diversion berms, railroad facilities including bridge supports, access roads, and utility poles shall be returned to pre-construction conditions and protected from scouring by storm water flows, subject to the approval of the railroad owner. Implement Mitigation Measures **HYDRO-1** and **HYDRO-6**.	Less than significant with mitigation.
Expansion of New Water Supply Facilities Would the proposed Project require new or expanded water supply resources or	None required.	Less than significant.

TABLE ES-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES – GROUNDWATER CONSERVATION AND RECOVERY COMPONENT

Environmental Impact	Mitigation Measures	Significance Conclusion
entitlements? Would the proposed Project result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the projects projected demand in addition to the provider's existing commitments?		
Solid Waste Would the proposed Project be served by a landfill with insufficient permitted capacity to accommodate the project solid waste disposal needs? Would the proposed Project comply with federal, state, and local statutes and regulations related to solid waste?	None required.	Less than significant.
Disruption of Local and Regional Utilities Would the proposed Project disrupt local or regional utility lines?	**UTIL-2:** The owner of the natural gas pipelines traversing the Cadiz Property shall be notified in advance of construction activities near the pipelines sufficient to allow for supervision and approval by the owner of construction methods and pipeline under-crossing designs. The under-crossing designs shall require approval from the pipeline owner.	Less than significant with mitigation.
Energy Usage Would the proposed Project require a substantial increase in energy usage?	**UTIL-3:** Pumps installed as part of the Project shall be rated for high efficiency to minimize energy consumption.	Less than significant with mitigation.
4.14 RECREATION		
Disruption of Recreational Facilities Would the proposed Project adversely affect the recreational experience of established recreational facilities?	None required.	Less than significant.
Deterioration of Recreational Facilities Would the proposed Project 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?	None required.	No impact.
New Recreational Facilities Would the proposed Project include recreational facilities or required the construction or expansion or recreational facilities which might have an adverse physical effect on the environment?	None required.	No impact.

TABLE ES-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES – GROUNDWATER CONSERVATION AND RECOVERY COMPONENT

Environmental Impact	Mitigation Measures	Significance Conclusion
4.15 TRANSPORTATION AND TRAFFIC		
Consistency with Regulations for Circulation System Performance Would the proposed Project conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	**TR-1:** A Traffic Control Plan shall be implemented that includes the following elements: • Identify hours of construction and hours for deliveries and include a discussion of haul routes; • Identify all access restrictions, parking restrictions, and signage requirements on major roads (e.g., speed limit); • Identify signage and flag men necessary at turn-off lanes on SR-62 and US-66 to avoid traffic hazards on fast moving roads; • Include a plan to coordinate all construction activities with emergency service providers in the area at least one month in advance. Emergency service providers shall be notified of the timing, location, and duration of construction activities. All roads shall remain passable to emergency service vehicles at all times; • Arrange for a telephone resource to address public questions and complaints during Project construction. **TR-2:** The construction contractor shall submit construction plans for construction within the railroad easement to the railroad owner and operator for their review and approval. Any plans to deliver materials on the rail lines shall be reviewed and approved by the railroad owner and operator. The construction contractor shall obtain approval from the railroad operator for material delivery and staging activities within the railroad right-of-way. **TR-3:** During construction, all at-grade railroad crossings shall be clearly flagged and barricaded to ensure that all vehicular traffic comes to a full stop prior to crossing railroad tracks. **TR-4:** The construction contractor shall implement mandatory railroad safety training and implement railroad safety measures requested by the railroad operator.	Less than significant with mitigation.
Congestion Management Standard / LOS Standard Would the proposed Project conflict with an applicable congestion management program, including, but not limited to, level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	Implement Mitigation Measures **TR-1 through TR-4**.	Less than significant with mitigation.
Air Traffic Would the proposed Project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	None required.	Less than significant.

TABLE ES-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES – GROUNDWATER CONSERVATION AND RECOVERY COMPONENT

Environmental Impact	Mitigation Measures	Significance Conclusion
Traffic Hazards Would the proposed Project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	Implement Mitigation Measures **TR-1 through TR-4**.	Less than significant with mitigation.
Emergency Access Would the proposed Project result in inadequate emergency access?	Implement Mitigation Measure **TR-1**.	Less than significant with mitigation.
Public Transit, Bicycle, or Pedestrian Facilities Would the proposed Project conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	None required.	No impact.

TABLE ES-2
SUMMARY OF IMPACTS AND MITIGATION MEASURES – IMPORTED WATER STORAGE COMPONENT

Environmental Impact	Mitigation Measures	Significance Conclusion
4.1 AESTHETICS		
Scenic Vistas Would the proposed Project have a substantial adverse effect on a scenic vista?	None required.	Less than significant.
Scenic Resources Would the proposed Project substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a State Scenic Highway?	None required.	No impact.
Visual Character Would the proposed Project substantially degrade the existing visual character or quality of the site and its surroundings?	None required.	Less than significant.
Light and Glare Would the proposed Project create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?	Implement Mitigation Measures **AES-1** and **AES-2.**	Less than significant with mitigation.
4.2 AGRICULTURE AND FORESTRY RESOURCES		
Farmland Conversion Would the proposed Project 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?	None required.	No impact.
Agricultural Zoning or Williamson Act Contract Would the proposed Project conflict with existing zoning for agricultural use, or a Williamson Act contract?	None required.	Less than significant.
Forest Zoning Would the proposed Project 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)?	None required.	No impact.

TABLE ES-2
SUMMARY OF IMPACTS AND MITIGATION MEASURES – IMPORTED WATER STORAGE COMPONENT

Environmental Impact	Mitigation Measures	Significance Conclusion
Forest Land Conversion Would the proposed Project result in loss of forest land or conversion of forest land to non-forest use?	None required.	No impact.
Agriculture Uses Would the proposed Project 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?	None required.	Less than significant.
4.3 AIR QUALITY		
Consistency with Air Quality Management Plans Would the proposed Project conflict with or obstruct implementation of the applicable air quality plan?	Implement Mitigation Measures **AQ-1 through AQ-5.**	Less than significant with mitigation.
Air Quality Standards Would the proposed Project violate any air quality standard or contribute substantially to an existing or projected air quality violation?	Implement Mitigation Measures **AQ-1 through AQ-5.**	Significant and unavoidable for NOx emissions during construction even with mitigation. Operational emissions would be less than significant.
Sensitive Receptors Would the proposed Project expose sensitive receptors to substantial pollutant concentrations?	None required.	Less than significant.
Objectionable Odors Would the proposed Project create objectionable odors affecting a substantial number of people?	None required.	Less than significant.
Cumulative Impact Would the proposed Project result in a cumulatively considerable air quality impact?	Implement Mitigation Measures **AQ-1 through AQ-5.**	Though operational emissions would not be cumulatively considerable, short term construction activities would exceed MDAQMD standards and would therefore result in a significant and unavoidable cumulative impact even after mitigation.

TABLE ES-2
SUMMARY OF IMPACTS AND MITIGATION MEASURES – IMPORTED WATER STORAGE COMPONENT

Environmental Impact	Mitigation Measures	Significance Conclusion
4.4 BIOLOGICAL RESOURCES		
Special-Status Wildlife Species Would the proposed Project have a substantial adverse effect, either directly or through habitat modifications, on any plant species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFG or USFWS?	**BIO-18: Imported Water Storage Component**. A habitat compensation plan for preservation in perpetuity for habitat at a 1:1 minimum ratio would be prepared and implemented for loss of habitat within a designated critical habitat area for desert tortoise. The mitigation ratios would be established by USFWS. Implement Mitigation Measures **AES-1, AES-2**, and **BIO-1 through BIO-13**.	Less than significant with mitigation.
Special-Status Plant Species Would the proposed Project have a substantial adverse effect, either directly or through habitat modifications, on any plant species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFG or USFWS?	Implement Mitigation Measure **BIO-14.**	Less than significant with mitigation.
Sensitive Habitat Would the proposed Project have a substantial adverse impact on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFG or USFWS?	None required.	Less than significant.
Wetlands Would the proposed Project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	None required.	Less than significant.
Wildlife Movement Would the proposed Project interfere substantially with the movement of any native resident or wildlife species or with established native resident or migratory native wildlife corridors, or impede the use of wildlife nursery sites?	None required.	Less than significant.
Local Policy or Ordinance Would the proposed Project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	Implement Mitigation Measures **BIO-16** and **BIO-17.**	Less than significant with mitigation.

TABLE ES-2
SUMMARY OF IMPACTS AND MITIGATION MEASURES – IMPORTED WATER STORAGE COMPONENT

Environmental Impact	Mitigation Measures	Significance Conclusion
Habitat Conservation Plan Would the proposed Project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional or state habitat conservation plan?	Implement Mitigation Measure **BIO-18.**	Less than significant with mitigation.
4.5 CULTURAL RESOURCES		
Historical Resources Would the proposed Project cause a substantial adverse change in the significance of a historical resource as defined in *CEQA Guidelines* Section 15064.5?	Implement Mitigation Measures **CUL-1 through CUL-6.**	Less than significant with mitigation.
Archeological Resources Would the proposed Project cause a substantial adverse change in the significance of an archaeological resource pursuant to *CEQA Guidelines* Section 15064.5?	Implement Mitigation Measures **CUL-1 through CUL-7.**	Less than significant with mitigation.
Paleontological Resources Would the proposed Project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	Implement Mitigation Measures **CUL-8 through CUL-10.**	Less than significant with mitigation.
Human Remains Would the proposed Project disturb any human remains, including those interred outside of formal cemeteries?	Implement Mitigation Measure **CUL-11.**	Less than significant with mitigation.
Indian Trust Assets Would the proposed Project directly involve the use of land or sites of religious or cultural importance to Native Americans? Would the proposed Project affect the use of reservation lands or sites of religious or cultural importance to Native Americans?	None required.	No impact.
4.6 GEOLOGY AND SOILS		
Seismic Impacts from Surface Fault Rupture, Ground Shaking, Landslides, or Liquefaction Would the proposed Project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:	**GEO-2: Imported Water Storage Component.** The spreading basin berms shall be designed so that soil composition, side slopes and freeboard requirements are approved by a qualified geotechnical engineer.	Less than significant with mitigation.

TABLE ES-2
SUMMARY OF IMPACTS AND MITIGATION MEASURES – IMPORTED WATER STORAGE COMPONENT

Environmental Impact	Mitigation Measures	Significance Conclusion
• 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); • Strong seismic ground shaking; • Seismic-related ground failure, including liquefaction; • Landslides?		
Soil Erosion and Loss of Topsoil Would the proposed Project result in substantial soil erosion or the loss of topsoil?	Implement **HYDRO-1** and **HYDRO-4.**	Less than significant with mitigation.
Geologically Unstable Area Would the proposed project 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 on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	None required.	Less than significant.
Expansive or Corrosive Soils Would the proposed Project could be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	None required.	Less than significant.
Soil Suitability for Septic System Would the proposed Project could 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 waste water?	None required.	No impact.
4.7 GREENHOUSE GAS EMISSIONS		
Greenhouse Gas Emissions Would the proposed Project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment? Would the proposed Project conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the	**GHG-2: Imported Water Storage Component**. Within 90 days of completion of Project construction, carbon offset credits shall be purchased from The Climate Registry, or other source that is approved by CARB as being consistent with the policies and guidelines of the California Global Warming Solution Act of 2006 (AB 32), or that is approved by a local or regional agency with jurisdiction over or within San Bernardino County as local emission credits under a GHG Reduction Plan or similar program, in sufficient quantity to reduce the Project's first year total (direct plus indirect) GHG emissions below 10,000 $MTCO_2e$ per year, and each year purchase additional carbon offset credits (due to a net	Less than significant with mitigation.

TABLE ES-2
SUMMARY OF IMPACTS AND MITIGATION MEASURES – IMPORTED WATER STORAGE COMPONENT

Environmental Impact	Mitigation Measures	Significance Conclusion
emissions of GHG (including AB 32, the California Global Warming Solutions Act of 2006, and the AB 32 Scoping Plan)?	increase in emissions from first year operations) as may be needed to reduce emissions below 10,000 $MTCO_2e$.	
4.8 HAZARDS AND HAZARDOUS MATERIALS		
Routine Transportation, Use, Disposal or Release of Hazardous Materials Would the proposed Project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? Would the proposed Project 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?	Implement Mitigation Measure **HAZ-1**.	Less than significant with mitigation.
Hazardous Materials Use Near Schools Would the proposed Project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	None Required.	No impact.
Hazardous Materials Sites Would the proposed Project be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment?	Implement Mitigation Measure **HAZ-3.**	Less than significant with mitigation.
Airport Hazards Would the proposed Project result in a safety hazard for people residing or working in the Project area for a project within the vicinity of a private airstrip or within an airport land use plan?	None required.	Less than significant.
Emergency Response Plans Would the proposed Project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	None required.	No impact.
Grassland and Wildland Fires Would the proposed Project expose people or	None required.	Less than significant.

TABLE ES-2
SUMMARY OF IMPACTS AND MITIGATION MEASURES – IMPORTED WATER STORAGE COMPONENT

Environmental Impact	Mitigation Measures	Significance Conclusion
structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?		
4.9 HYDROLOGY AND WATER QUALITY		
Impacts to Water Quality Standards or Waste Discharge Requirements Would the proposed Project result in a significant impact by degrading water quality or violating waste discharge requirements?	None required.	Less than significant.
Impacts to Groundwater Supplies or Groundwater Recharge Would the proposed Project result in a significant impact by substantially depleting groundwater supplies or interfering substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a significant lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	None required.	No impact.
Impacts to Drainage Patterns Would the proposed Project result in a significant impact by altering the existing drainage patterns of the area and the courses of streams in a manner that could result in substantial erosion or siltation on- or off-site, or result in substantially increasing the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	**HYDRO-5: Imported Water Storage Component.** Project operators shall prepare a drainage analysis of the recharge basin and access road locations to ensure that diverted stormwater runoff does not affect downstream railroad crossings, roads, or other infrastructure. Recharge basins shall be located outside of major drainages, such as Schuyler Wash. The recharge basins shall be designed using BMPs to divert sheet flow storm water around the basins and redistribute the flow downstream without increasing velocity or scour potential.	Less than significant with mitigation.
Impacts to Housing or Structures Relative to Flooding, Seiche, Tsunami, or Mudflow Would the proposed Project place housing or structures in locations that would be subject to flooding, seiches, tsunamis, or mudflows?	Implement Mitigation Measure **HYDRO-4.**	Less than significant with mitigation.
4.10 LAND USE AND PLANNING		
Divide an Established Community Would the proposed Project physically divide an established community?	None required.	No impact.

TABLE ES-2
SUMMARY OF IMPACTS AND MITIGATION MEASURES – IMPORTED WATER STORAGE COMPONENT

Environmental Impact	Mitigation Measures	Significance Conclusion
Consistency with Land Use Plans Would the proposed Project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the General Plan, Specific Plan, Local Coastal Program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	None required.	Less than significant.
Habitat Conservation Plans or Natural Community Conservation Plans Would the proposed Project conflict with any applicable habitat conservation plan or natural community conservation plan?	None required.	No impact.
Socioeconomics Would the proposed Project cause an adverse affect on economic or socioeconomic conditions to an extent that would result in substantial physical environmental effects to the Project area (e.g. urban decay) or cause physical changes that are determined to be significant due to economic or social effects (e.g. divide a community)?	None required.	Beneficial.
Environmental Justice Would the proposed Project cause a disproportionately high and adverse human health or environmental impact on minority populations or low-income populations?	None required.	No impact.
4.11 MINERAL RESOURCES		
Loss of Availability of Known Mineral Resources Would the proposed Project 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?	None required.	No impact.
Loss of Availability of Locally Important Mineral Resources Would the proposed Project 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?	None required.	No impact.

TABLE ES-2
SUMMARY OF IMPACTS AND MITIGATION MEASURES – IMPORTED WATER STORAGE COMPONENT

Environmental Impact	Mitigation Measures	Significance Conclusion
4.12 NOISE		
Sensitive Receptors Would the proposed Project exposed persons to or generate noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	None required.	Less than significant.
Ground-Borne Vibrations and Ground-borne Noise Would the proposed Project expose persons to or generate excessive ground-borne vibration or ground-borne noise levels?	None required.	Less than significant.
Ambient Noise Levels Would the proposed Project could create a substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project. Would the proposed Project create a substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project?	None required.	Less than significant.
Exposure to Excessive Noise Levels Would the proposed Project expose people residing or working in the Project area to excessive noise levels 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 proposed Project expose people residing or working in the Project area to excessive noise levels if the Project is located in the vicinity of a private airstrip?	None required.	Less than significant.
4.13 PUBLIC SERVICES AND UTILITIES		
Public Services Would the proposed Project 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	None required.	Less than significant.

TABLE ES-2
SUMMARY OF IMPACTS AND MITIGATION MEASURES – IMPORTED WATER STORAGE COMPONENT

Environmental Impact	Mitigation Measures	Significance Conclusion
environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services listed below? • Fire protection; • Police protection; • Schools; • Parks; or • Other public facilities.		
Expansion of New Wastewater Facilities and Compliance with Wastewater Requirements Would the proposed Project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board? Would the proposed Project require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	None required.	No impact.
Storm Water Drainage Facilities Would the proposed Project require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	**UTIL-4: Imported Water Storage Component.** Spreading basins shall be designed to avoid or minimize encroachment into major surface drainages. The Project participants shall conduct a drainage study to evaluate the potential impact of the spreading basins to surface drainages and to develop design parameters to minimize storm flow detention, velocity, and scouring downstream from the new basins. These recommendations shall be included in final designs to ensure that downstream improvements, including railroad lines and the agricultural operations, are not adversely affected. Implement Mitigation Measures **HYDRO-1** and **HYDRO-6**.	Less than significant with mitigation.
Expansion of New Water Supply Facilities Would the proposed Project require new or expanded water supply resources or entitlements? Would the proposed Project result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the projects projected demand in addition to the provider's existing commitments?	None required.	Less than significant.

TABLE ES-2
SUMMARY OF IMPACTS AND MITIGATION MEASURES – IMPORTED WATER STORAGE COMPONENT

Environmental Impact	Mitigation Measures	Significance Conclusion
Solid Waste Would the proposed Project be served by a landfill with insufficient permitted capacity to accommodate the project solid waste disposal needs? Would the proposed Project comply with federal, state, and local statutes and regulations related to solid waste?	None required.	Less than significant.
Disruption of Local and Regional Utilities Would the proposed Project disrupt local or regional utility lines?	Implement Mitigation Measure **UTIL-2.**	Less than significant with mitigation.
Energy Usage Would the proposed Project require a substantial increase in energy usage?	None required.	Less than significant.
4.14 RECREATION		
Disruption of Recreational Facilities Would the proposed Project adversely affect the recreational experience of established recreational facilities?	None required.	Less than significant.
Deterioration of Recreational Facilities Would the proposed Project 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?	None required.	No impact.
New Recreational Facilities Would the proposed Project include recreational facilities or require the construction or expansion or recreational facilities which might have an adverse physical effect on the environment?	None required.	No impact.
4.15 TRANSPORTATION AND TRAFFIC		
Consistency with Regulations for Circulation System Performance Would the proposed Project conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant	Implement Mitigation Measures **TR-1 through TR-4.**	Less than significant with mitigation.

TABLE ES-2
SUMMARY OF IMPACTS AND MITIGATION MEASURES – IMPORTED WATER STORAGE COMPONENT

Environmental Impact	Mitigation Measures	Significance Conclusion
components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?		
Congestion Management Standard / LOS Standard Would the proposed Project conflict with an applicable congestion management program, including, but not limited to, level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	Implement Mitigation Measures **TR-1 through TR-4**.	Less than significant with mitigation.
Air Traffic Would the proposed Project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	None required.	Less than significant.
Traffic Hazards Would the proposed Project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	Implement Mitigation Measures **TR-1 through TR-4**.	Less than significant with mitigation.
Emergency Access Would the proposed Project result in inadequate emergency access?	Implement Mitigation Measure **TR-1**.	Less than significant with mitigation.
Public Transit, Bicycle, or Pedestrian Facilities Would the proposed Project conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	None required.	No impact.