

APPENDIX A:
Summary of Previous Environmental Documentation

Summary of Prior Environmental Documents

The current review incorporates by reference relevant analysis in environmental documents prepared by Federal, state, and local agencies. This appendix summarizes prior environmental analyses in two categories:

- Section 1 summarizes prior environmental analyses of the existing Northern Pipeline.
- Section 2 summarizes prior environmental analyses of the Mojave Groundwater Bank (“Water Project”). Although the Water Project is a separate project from the conversion of the Northern Pipeline (the subject of the current Proposed Action) and is outside of the scope of the BLM’s and DoD’s regulatory authority, the BLM and DoD are electing to incorporate by reference prior analyses of the Water Project to address issues raised in past litigation, and because the Applicant submitted those analyses as part of its application.

1 Prior Analysis of Northern Pipeline

1.1 Alternatives

Table 1: Pipeline Alternatives Analyzed

NEPA/CEQA Review	Pipeline Alternatives Considered
1984-1985 All American Pipeline EIS/EIR	The California State Lands Commission and BLM prepared a joint NEPA/CEQA analysis of the proposed Celeron/All American and Getty Pipeline projects, a 1,200-mile buried pipeline to transport crude oil from California to Texas. No Action and six pipeline routing alternatives were analyzed in detail, resulting in selection and approval of 1,200-mile All American Pipeline, including the existing Northern Pipeline alignment which was ultimately authorized (and constructed). <i>See 1985 FEIR/FEIS at 1-3: “Several pipeline routing alternatives were considered. The Santa Maria Canyon Routes (one proposed by Getty and one by Celeron) are alternatives for crossing the Sierra Madre Mountains; the Desert Plan Utility Corridor is an alternative for crossing the California portion of the Mojave Desert; the Brenda route is an alternative around the Kofa National Wildlife Refuge (NWR) and the McCamey to Freeport route is an alternative from</i>

	West Texas to the Gulf Coast. Single pipeline and no project alternatives were also evaluated. Alternatives considered but eliminated from detailed analysis included transportation alternatives of rail, truck, and other pipeline transportation developments and an alternate route across the Sierra Madre Mountains through tunnel Canyon.”
2002-2005 El Paso Pipeline Conversion EA/EIR	The California State Lands Commission and BLM prepared a joint NEPA/CEQA analysis to evaluate a proposal to convert approximately 304 miles of the All American Pipeline (including the existing Northern Pipeline) from crude oil to natural gas conveyance between Ehrenberg, Arizona and Wheeler Ridge, California. The agencies analyzed a no Action and two action alternatives which would have converted smaller portions of the pipeline (Ehrenberg to Daggett, California; Ehrenberg to Cadiz, California) in detail; two route alternatives were considered and eliminated from detailed analysis. The agencies ultimately approved an alternative that would leave the 217-mile portion from Cadiz to Wheeler Ridge idle. <i>See</i> CACA 42649 DR/FONSI at 4.
2011-2012 Cadiz Valley Water Conservation, Recovery, and Storage Project EIR	The Santa Margarita Water District prepared a CEQA analysis of the Cadiz Valley Water Conservation, Recovery, and Storage Project, including pipeline connection to the Colorado River Aqueduct (Southern Pipeline). A no Action and four alternative Southern Pipeline alignments (Eastern Alternative; Western Alternative; Combination Alternative; Eastern/Canal Alternative) were analyzed in detail. <i>See</i> 2011 DEIR Chapter 7: Alternatives Analysis. The analysis also considered an “Existing Natural Gas Pipeline Alternative” under which the existing buried Northern Pipeline would be converted for water conveyance. The analysis concluded that of the Project Facility Alternatives analyzed in detail, converting the existing natural gas pipeline to water conveyance (the “Existing Natural Gas Pipeline Alternative”) would be the environmentally superior alternative. <i>See</i> 2011 DEIR at ES-10.
2020 El Paso Natural Gas ROW Renewal CatEx	BLM’s review of renewal of El Paso Natural Gas pipeline ROW did not consider additional alternatives.
2023 Cadiz MLA ROW Assignment CatEx (DOI-BLM-CA-D090-2023-0006-CX)	BLM’s review of the assignment of the ROW from El Paso Natural Gas to Cadiz did not consider additional alternatives.
2025 Cadiz Valley Water Conservation, Recovery, and Storage Project Addendum to the	The Fenner Valley Water Authority analyzed modifications to the Cadiz Valley Water Conservation, Recovery, and Storage Project, including the construction of the facilities necessary to convert the existing underground idle steel pipeline previously authorized to convey

2012 Environmental Impact Report (FEIR Addendum No. 2)	oil/gas (i.e. the Northern Pipeline) into a water conveyance pipeline. The analysis considered the impacts of the Northern Pipeline conversion combined with the components of the Water Project as evaluated in the 2012 FEIR. The FEIR Addendum No. 2 did not consider other alternatives.
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1.2 Biological Resources

Table 2: Summary of Prior Biological Resources Impact Analysis of Existing Pipeline

NEPA/CEQA Review	Summary of Impact Analysis
1984-1985 All American Pipeline EIS/EIR	Impacts of construction and operation of the All American Pipeline on terrestrial biology, including vegetation, were analyzed in detail. <i>See</i> 1984 DEIS/DEIR at Sections 4.2.7, 4.3.7, 4.4.7, 4.5.7, 4.6.7. The analysis concluded that construction of the project would result in significant impacts to vegetation and terrestrial habitats. Impacts of construction and operation of the All American Pipeline on aquatic biology, including fish species and other aquatic communities, were analyzed in detail. <i>See</i> 1984 DEIS/DEIR at Sections 4.2.6, 4.3.6, 4.4.6, 4.5.6, 4.6.6. The analysis concluded that a major oil spill from the project would result in significant impacts to some fish species and aquatic communities. Impacts of construction and operation on terrestrial biology, including plant life and wildlife, were analyzed in detail. <i>See</i> 1984 DEIS/DEIR at Sections 4.2.7, 4.3.7, 4.4.7, 4.5.7, 4.6.7. The analysis concluded that the project would result in significant impacts to vegetation and terrestrial habitats, but mitigation would minimize impacts to bighorn sheep, raptors, and other species. Impacts to threatened and endangered fish, plant, marine mammals, and wildlife species were analyzed pursuant to Section 7 of the Endangered Species Act of 1973. <i>See</i> 1984 DEIS/DEIR at Appendix B; 1985 FEIS/FEIR at Appendix 4.2. Impacts to listed species were assessed in consultation with the U.S. Fish and Wildlife Service. The U.S. Fish and Wildlife issued a Biological Opinion that determined that the following ESA-listed species were present in the pipeline project areas: the blunt-nosed leopard lizard, Yuma clapper rail, American peregrine

	falcon, bald eagle, California condor, San Joaquin kit fox. <i>Id.</i> The study concluded that the pipeline would not jeopardize the continued existence of the endangered species found in the pipeline project areas or result in the destruction or adverse modification of the species' critical habitat. <i>Id.</i>
2002-2005 El Paso Pipeline Conversion EA/EIR	Impacts of construction and operation of a natural gas (converted from oil) pipeline between Ehrenberg, Arizona and Wheeler Ridge, California on on populations of fish, plant life, and wildlife were analyzed in detail. <i>See</i> 2002 El Paso Pipeline Conversion EA/DEIR Section 4.2: Biological Resources. The analysis identified temporary and permanent direct and indirect impacts on plant communities and wildlife habitat, but such impacts that would occur between Mojave and Cadiz would be reduced to below a level of significance through the implementation of mitigation measures. <i>See id.</i> The project would also have direct and indirect impacts on special interest plant and wildlife species; however, with mitigation measures, none of the anticipated impacts would be considered significant. <i>See id.</i> Similarly, the project's expected impact on wildlife movement corridors was not considered significant. <i>Id.</i>
2011-2012 Cadiz Valley Water Conservation, Recovery, and Storage Project EIR	Impacts to forestry resources associated with the conversion of the Northern Pipeline from Cadiz to Wheeler Ridge were analyzed as a Project Facility Alternative to the proposed Water Project (i.e., conveyance of groundwater through the Southern Pipeline). <i>See</i> 2011 DEIR at 7-31. The EIR concluded that no forest resources land would be affected by the conversion of the Northern Pipeline. As such, "Impacts would be reduced to those compared to the proposed Project." <i>Id.</i> Impacts to biological resources associated with the conversion of the Northern Pipeline from Cadiz to Wheeler Ridge were analyzed as a Project Facility Alternative to the proposed Water Project (i.e., conveyance of groundwater through the Southern Pipeline). <i>See</i> 2011 DEIR at 7-32. The EIR concluded that "Impacts to desert areas would be fewer than the proposed [Southern Pipeline] since the construction area would be more limited. However, direct effects to sensitive species could be greater." <i>Id.</i> (Note that the impacts of the Northern Pipeline were specifically analyzed in the 2025 FEIR Addendum No. 2, discussed below.)
2020 El Paso Natural Gas ROW Renewal CatEx (DOI-BLM-AZ-0000-2019-0002-CX)	BLM's review of renewal of El Paso Natural Gas pipeline ROW identified no significant impacts to the surface of the land, including to vegetation, requiring detailed analysis.

	Renewal of the ROW would not have significant impacts on listed species. <i>See</i> 2020 Categorical Exclusion Record at 6. The ROW grant stipulations require the ROW holder to contact BLM prior to any ground disturbing or vegetation removal/treatment activities and potential impacts to listed or proposed species would be assessed and avoided at that time.
2023 Cadiz MLA ROW Assignment CatEx (DOI-BLM-CA-D090-2023-0006-CX)	BLM’s review did not identify potential significant impacts to vegetation, wildlife, or threatened or endangered species requiring detailed analysis.
2025 Cadiz Valley Water Conservation, Recovery, and Storage Project Addendum to the 2012 Environmental Impact Report (FEIR Addendum No. 2)	Impacts to agriculture and forestry resources associated with the conversion and operation of the Northern Pipeline for water transportation, including the proposed modifications combined with the components as evaluated in the 2012 FEIR, were assessed. FEIR Addendum No. 2 at 22. The analysis included desktop reviews using the California Agricultural Land Evaluation and Site Assessment Model (1997) to assess impacts on agriculture and farmland, a review of information compiled by the California Department of Forestry and Fire Protection, and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board to assess potential impacts to forest land. <i>Id.</i> The analysis found that no prime farmland, unique farmland, or farmland of statewide importance (collectively “Important Farmland”) would be converted for the project or conflict with existing zoning for agricultural use or forest land. <i>Id.</i> The land for Pump Station 6 is designated as Grazing Land, which does not include Important Farmland. The land for the other Pump Station sites are designated as “Other Land.” <i>Id.</i> Conversion of the Northern Pipeline and development of the Pump Stations, AR/AVs and Bos would not conflict with existing zoning for, or cause rezoning of forest land, timberland, or timberland zoned for timberland production. <i>Id.</i> The FEIR Addendum No. 2 concluded that the conversion of the Northern Pipeline would not result in substantial impacts, cause new significant environmental effects, or result in a substantial increase in the severity of previously identified significant effects to agriculture and forestry resources. <i>Id.</i> at 23. Impacts to biological resources associated with the conversion and operation of the Northern Pipeline for water conveyance, including the proposed project modifications combined with components as evaluated in the 2012 FEIR, were assessed. The analysis included a comprehensive literature review and field surveys and evaluated impacts to wildlife (including special-status species), vegetation (including special-status plants), and wetland habitats. The field surveys did not identify any special-status wildlife species in the study area and there is no

	designated critical habitat within the study area, but surveys did identify suitable habitat with a low potential to support special-status species, including desert tortoise. <i>Id.</i> at 32-33. No Joshua trees were identified in the study area. <i>Id.</i> at 32-33. Mitigation measures would require preconstruction surveys and avoidance and minimization measures for sensitive biological resources, protection measures for desert tortoise through exclusion fencing and development of a Desert Tortoise Avoidance and Protection Plan, confinement of construction activities to the existing disturbed areas of the project to minimize disturbance to previously undisturbed areas, and restoration of temporarily affected areas to pre-construction conditions or better. <i>Id.</i> at 33. No wetland habitats were identified, and any impacts in dry desert washes would comply with state law and be reduced through mitigation measures. <i>Id.</i> at 34. The Northern Pipeline conversion project is not expected to affect wildlife movement and mitigation measures would reduce and avoid impacts to any desert tortoise that may move through the area. <i>Id.</i> at 34-35. Other mitigation measures would avoid and reduce impacts to special-status species habitat, special-status plants and other sensitive biological resources. <i>Id.</i> at 35-41. The FEIR Addendum No. 2 concluded that the conversion of the Northern Pipeline would not result in substantial impacts, cause new significant environmental effects, or result in a substantial increase in the severity of previously identified significant effects to biological resources. <i>Id.</i> at 41.
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1.3 Air Quality

Table 3: Summary of Prior Air Quality Analysis of Existing Pipeline

NEPA/CEQA Review	Summary of Impact Analysis
1984-1985 All American Pipeline EIS/EIR	Air quality impacts during construction and operation of the All American Pipeline were analyzed in detail. <i>See</i> 1985 FEIS/FEIR at Appendix 4.5: Air Quality Addendum; 1984 DEIS/DEIR at Sections 4.2.1, 4.3.1, 4.4.1, 4.5.1. The analysis concluded that the project was not expected to cause long-term significant air quality impacts, and no mitigation measures were required.

2002-2005 El Paso Pipeline Conversion EA/EIR	Air quality impacts associated with a natural gas (converted from oil) pipeline between Ehrenberg, Arizona and Wheeler Ridge, California were analyzed in detail. <i>See</i> 2002 El Paso Conversion EA/DEIR at Section 4.7. The analysis concluded that construction emissions could temporarily exceed significance thresholds established by the Mojave Desert Air Quality Management District and recommended mitigation to reduce those effects. No air quality impacts would result from long-term operation.
2011-2012 Cadiz Valley Water Conservation, Recovery, and Storage Project EIR	Air quality impacts associated with the conversion and operation of the Northern Pipeline to convey water from Cadiz to Wheeler Ridge were analyzed as a Project Facility Alternative to the proposed Water Project (i.e., conveyance of groundwater through the Southern Pipeline). <i>See</i> 2011 DEIR at 7-31. The EIR concluded that air emissions from construction would be fewer than those associated with the proposed Southern Pipeline since the Northern Pipeline already existed. <i>Id.</i>
2020 El Paso Natural Gas ROW Renewal CatEx (DOI-BLM-AZ-0000-2019-0002-CX)	BLM's review of renewal of El Paso Natural Gas pipeline ROW found no significant impacts to air quality.
2023 Cadiz MLA ROW Assignment CatEx (DOI-BLM-CA-D090-2023-0006-CX)	BLM's review did not identify potential significant impacts to air quality requiring detailed analysis.
2025 Cadiz Valley Water Conservation, Recovery, and Storage Project Addendum to the 2012 Environmental Impact Report (FEIR Addendum No. 2)	Air quality impacts associated with the conversion of the Northern Pipeline for water conveyance, including the proposed modifications combined with the components evaluated in the 2012 FEIR, were analyzed. FEIR Addendum No. 2 at 24. The analysis involved an evaluation of whether the project is conforming under the 2020 Mojave Desert Air Quality Management District (MDAQMD), including whether it complies with the MDAQMD, complies with the proposed control measures of the Air Quality Management Plan and is consistent with the growth forecasts in the applicable Plan. <i>Id.</i> The analysis found that, similar to the 2012 FEIR, although the project would be associated with a temporary short-term increase in employment, which would contribute to increased traffic, such temporary increase would not conflict with the long-term employment projections upon which the Air Quality Management Plan (AQMP) growth projections are based. <i>Id.</i> Additionally, the analysis noted that the construction will be undertaken in compliance with AQMP control strategies to reduce short-

	term emissions from construction activities, and the implementation of the rules required under the MDAQMD, including rules regarding visible, nuisance, and fugitive dust emissions, among others. <i>Id.</i> The Northern Pipeline conversion and appurtenant facility construction would not exceed thresholds of significance for criteria pollutants, and although the Project would exceed thresholds of significance for NOx during construction, these would be temporary emissions that would not conflict with the local air quality plan to control long-term ambient ozone levels. <i>Id.</i> During construction, the same mitigation measures as detailed in the 2012 FEIR would be implemented, and therefore, the FEIR Addendum No. 2 concluded that the construction activities involved in the conversion of the Northern Pipeline would not result in substantial changes, cause new significant environmental effects, or result in a substantial increase in the severity of previously identified significant effects to air quality. <i>Id.</i> at 27. Regarding operation of the Northern Pipeline, emissions from the conveyance of 25,000 acre feet of water per year (AFY) would be approximately half of what was estimated and studied in the 2012 FEIR, which contemplated conveyance of 50,000 AFY. FEIR Addendum No. 2 at 28. Therefore, the FEIR Addendum No. 2 concluded that the operation of the Northern Pipeline would not result in substantial changes, cause new significant environmental effects, or result in a substantial increase in the severity of previously identified significant effects to air quality. <i>Id.</i> at 30.
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1.4 Recreation

Table 4: Summary of Prior Recreation Resources Impact Analysis of Existing Pipeline

NEPA/CEQA Review	Summary of Impact Analysis
1984-1985 All American Pipeline EIS/EIR	Impacts of construction and operation of the All American Pipeline on recreation were analyzed in detail. <i>See</i> 1984 DEIS/DEIR at Sections 4.2.9, 4.3.9, 4.4.9, 4.5.9, 4.6.9. The analysis concluded that construction of the pipeline would impact recreation resources.

2002-2005 El Paso Pipeline Conversion EA/EIR	Impacts of construction and operation of a natural gas (converted from oil) pipeline between Ehrenberg, Arizona and Wheeler Ridge, California on recreation were analyzed. <i>See</i> 2002 El Paso Pipeline Conversion EA/DEIR Section 4.14. The analysis concluded that implementation of the project would not result in any net increase in the use of existing parks or other recreational facilities in the area.
2011-2012 Cadiz Valley Water Conservation, Recovery, and Storage Project EIR	Impacts to recreation associated with the conversion of the Northern Pipeline to convey water from Cadiz to Wheeler Ridge were analyzed as a Project Facility Alternative. <i>See</i> 2011 DEIR at 7-34. The EIR concluded that use of the existing natural gas pipeline would not affect recreational facilities.
2020 El Paso Natural Gas ROW Renewal CatEx (DOI-BLM-AZ-0000-2019-0002-CX)	BLM's review of renewal of El Paso Natural Gas pipeline ROW found no significant impacts to recreation.
2023 Cadiz MLA ROW Assignment CatEx (DOI-BLM-CA-D090-2023-0006-CX)	BLM's review did not identify potential significant impacts to recreation requiring detailed analysis.
2025 Cadiz Valley Water Conservation, Recovery, and Storage Project Addendum to the 2012 Environmental Impact Report (FEIR Addendum No. 2)	Impacts to recreation resulting from the conversion and operation of the Northern Pipeline for water conveyance, including the proposed modifications combined with the components evaluated in the 2012 FEIR, were assessed. FEIR Addendum No. 2 at 78. The analysis evaluated whether the project would lead to increased use of existing recreational facilities such that substantial physical deterioration of existing recreational facilities would occur or be accelerated, or whether the project would create or expand recreational facilities such that there might be an adverse physical effect on the environment. <i>Id.</i> The FEIR Addendum No. 2 concluded that since the project was modifying an existing pipeline and would not result in an increase in population, the conversion of the Northern Pipeline for water conveyance would not result in substantial changes to recreation, cause new significant environmental effects, or result in a substantial increase in the severity of previously identified significant effects. <i>Id.</i>

1.5 Cultural and Historic Resources and Tribal Interests

Table 5: Summary of Prior Cultural and Historic Resources Impact Analysis of Existing Pipeline

NEPA/CEQA Review	Summary of Impact Analysis
1984-1985 All American Pipeline EIS/EIR	Impacts of construction and operation of the All American Pipeline on cultural resources were analyzed in detail. <i>See</i> 1984 DEIS/DEIR at Sections 4.2.11, 4.3.11, 4.4.11, 4.5.11, 4.6.11. The analysis concluded that the project could potentially disturb sites eligible for listing on the National Register of Historic Places. At the time the FEIS/FEIR was published, inventory of resources, development of treatment plans, and consultation, including with tribal entities, were in progress. Compliance with Section 106 of the National Historic Preservation Act (“Section 106”) was planned to be completed using a phased evaluation approach prior to construction. <i>See</i> 1985 FEIS/FEIR at 2-1, 3-10. No specific cultural resources, sacred sites, or ethnographic sites were identified during tribal consultation. <i>See</i> 1985 FEIS/FEIR at 2-1.
2002-2005 El Paso Pipeline Conversion EA/EIR	Impacts of construction and operation of a natural gas (converted from oil) pipeline between Ehrenberg, Arizona and Wheeler Ridge, California on historic and archaeological resources were analyzed in detail. <i>See</i> 2002 El Paso Pipeline Conversion EA/DEIR Section 4.10: Cultural Resources. BLM consulted with the State Historic Preservation Office (SHPO) and Tribes with regards to historic and cultural resources. BLM sent consultation letters to all Tribes either residing in or with cultural ties to the area. “The letter was sent to a total of 30 tribes to inform them of the proposed undertaking and solicit their concerns/comments regarding possible historical and/or traditional ties to the area or the presence of religious or spiritual sites.” <i>See</i> 2002 El Paso Pipeline Conversion EA/DEIR at 4-230. BLM responded to questions from four Tribes and sent additional follow-up consultation letters. The analysis concluded that potential impacts to cultural resources and historic properties would be reduced through mitigation measures.

2011-2012 Cadiz Valley Water Conservation, Recovery, and Storage Project EIR	Impacts to cultural and archeological resources associated with the conversion of the Northern Pipeline from Cadiz to Wheeler Ridge were analyzed as a Project Facility Alternative to the proposed Project (i.e., conveyance of groundwater through the Southern Pipeline). <i>See</i> 2011 DEIR at 7-32. The EIR concluded that the smaller construction disturbance footprint of the Northern Pipeline would result in fewer impacts than the proposed Southern Pipeline, which would be new construction.
2020 El Paso Natural Gas ROW Renewal CatEx	Renewal of the ROW would not have significant impacts on properties listed or eligible for listing on the National Register of Historic Places. <i>See</i> 2020 Categorical Exclusion documentation at 5. Identification, assessment, and resolution of adverse effects to historic properties in accordance with Section 106 was completed under provisions of a Programmatic Memorandum of Agreement (PMOA) and Memorandum of Agreement (as referenced in the 1985 All American Pipeline EIS). The Categorical Exclusion documentation further stated that additional significant impacts to historic properties resulting from the ROW renewal were not likely to occur because the pipeline operator would be required to notify BLM of any disturbance to known or new sites.
2023 Cadiz MLA ROW Assignment CatEx (DOI-BLM-CA-D090-2023-0006-CX)	BLM's review did not identify potential significant impacts to cultural resources requiring detailed analysis.
2025 Cadiz Valley Water Conservation, Recovery, and Storage Project Addendum to the 2012 Environmental Impact Report (FEIR Addendum No. 2)	Impacts to cultural resources and tribal cultural resources resulting from the conversion and operation of the Northern Pipeline for water conveyance, including the proposed modifications combined with the components evaluated in the 2012 FEIR, were assessed. FEIR Addendum No. 2 at 43, 82. The FEIR Addendum No. 2 noted that, in accordance with the 2012 EIR mitigation requirements, impacts to cultural and tribal cultural resources will be avoided through the proactive identification of resources using site surveys prior to final designs, and placement of facilities in areas that do not pose significant impacts to existing resources. <i>Id.</i> Further, because the majority of the construction will take place in an existing utility easement, the facilities to be constructed will be largely in previously disturbed areas, and any resources any resources considered significant pursuant to subdivision (c) of Public Resources Code Section 5024.1 within the project area will be avoided. <i>Id.</i> at 82. The FEIR Addendum No. 2 concluded the conversion of the Northern Pipeline for water conveyance would not result in substantial changes to cultural and tribal cultural resources, cause new significant environmental effects, or

	result in a substantial increase in the severity of previously identified significant effects. <i>Id.</i> at 46, 82.
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1.6 Lands and Realty

Table 6: Summary of Prior Lands and Realty Resources Impact Analysis of Existing Pipeline

NEPA/CEQA Review	Summary of Impact Analysis
1984-1985 All American Pipeline EIS/EIR	Impacts of construction and operation of the All American Pipeline on land use and realty were analyzed. <i>See</i> 1984 DEIR/DEIS at Section 3.2.8; 1985 FEIR/FEIS at Exhibit D, CEQA Findings at 20-22. The analysis concluded that with the implementation of mitigation measures to reduce competition for housing between tourists and construction workers, centralize impacts on housing in areas which have sufficient accommodations, and/or reduce commuting distances, the impact of the project on local housing would be insignificant. The BLM approved a land use plan amendment to allow the construction of the All-American Pipeline outside of a designated utility corridor. <i>See</i> California Desert Conservation Area Plan at 96. Additionally, the analysis concluded that mitigation by Riverside County bringing the ROW into compliance with the Riverside County Comprehensive General Plan would reduce the impact regarding utility corridors to insignificant. <i>See</i> 1984 DEIR/DEIS at Section 3.2.9; 1985 FEIR/FEIS at Exhibit D, CEQA Findings at 29.
2002-2005 El Paso Pipeline Conversion EA/EIR	Impacts of construction and operation of a natural gas (converted from oil) pipeline pipeline between Ehrenberg, Arizona and Wheeler Ridge, California on land use were analyzed. <i>See</i> 2002 El Paso Pipeline Conversion EA/DEIR Section 4.12: Land Use and Planning. The analysis concluded that the construction could cause temporary impacts to land use, including impacts to nearby residences, the permanent conversion of residential land, and impacts to future residential uses, but mitigation measures could be implemented to reduce impacts to less-than-significant. BLM’s ROW approval was “in conformance with the California Desert Conservation Area Plan of 1980, as amended.” 2005 El Paso Pipeline Conversion Decision Record/FONSI at 7.

2011-2012 Cadiz Valley Water Conservation, Recovery, and Storage Project EIR	Impacts to land use and planning associated with the conversion of the Northern Pipeline to convey water from Cadiz to Wheeler Ridge were analyzed. <i>See</i> 2011 DEIR at 7-33. The EIR concluded that the conversion activities “were not expected to conflict with existing planning goals and policies as the activities would primarily be conducted within the pipeline right-of-way,” and would be “less than significant and similar to those of the proposed [Southern Pipeline].” <i>Id.</i>
2020 El Paso Natural Gas ROW Renewal CatEx (DOI-BLM-AZ-0000-2019-0002-CX)	BLM’s review of renewal of El Paso Natural Gas pipeline ROW found no significant impacts to lands and realty resources.
2023 Cadiz MLA ROW Assignment CatEx (DOI-BLM-CA-D090-2023-0006-CX)	BLM’s review did not identify potential significant impacts to lands and realty resources requiring detailed analysis.
2025 Cadiz Valley Water Conservation, Recovery, and Storage Project Addendum to the 2012 Environmental Impact Report (FEIR Addendum No. 2)	Impacts to land use and planning resources resulting from the conversion and operation of the Northern Pipeline for water conveyance, including the proposed modifications combined with the components evaluated in the 2012 FEIR, were assessed. FEIR Addendum No. 2 at 68. The analysis considered whether the project would physically divide an established community or cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted to avoid environmental impacts. <i>Id.</i> Because the project would utilize an existing underground pipeline to convey water, and the above-ground facilities would not create a barrier or linear feature, the conversion and operation Northern Pipeline for water conveyance would not divide an established community. <i>Id.</i> The development of seven pump stations would be partially outside of the existing right-of-way but would be located on private or federal parcels and would not conflict with any land use plan, policy or regulation. <i>Id.</i> Construction of pump stations on privately owned parcels would not be subject to County building approvals or Conditional Use Permits (under Government Code Section 53091), as the facilities would be used for water transmission and would fall under FVWA jurisdiction. <i>Id.</i> at 69. The FEIR Addendum No. 2 concluded the conversion of the Northern Pipeline for water conveyance would not result in substantial changes to land use and planning resources, cause new significant environmental effects, or result in a substantial increase in the severity of previously identified significant effects. <i>Id.</i>

1.7 Soils and Geology

Table 7: Summary of Prior Soil and Geology Resources Impact Analysis of Existing Pipeline

NEPA/CEQA Review	Summary of Impact Analysis
1984-1985 All American Pipeline EIS/EIR	Impacts of construction and operation of the All American Pipeline on geology were analyzed in detail. <i>See</i> 1984 DEIS/DEIR at Sections 4.2.2, 4.3.2, 4.4.2, 4.5.2, 4.6.2. The analysis concluded that construction activity would not result in impacts to geology but some geologic hazards such as slope hazards of fault zones could create risks to the oil pipeline. Impacts of construction and operation of the All American Pipeline on soils were analyzed in detail. <i>See</i> 1984 DEIS/DEIR at Sections 4.2.3, 4.3.3, 4.4.3, 4.5.3, 4.6.3. The analysis concluded that construction activity would not result in impacts to soil resources but oil spills during operation could result in impacts to soil resources.
2002-2005 El Paso Pipeline Conversion EA/EIR	Impacts of construction and operation of a natural gas (converted from oil) pipeline between Ehrenberg, Arizona and Wheeler Ridge, California on geology and soils were analyzed in detail. <i>See</i> 2002 El Paso Pipeline Conversion EA/DEIR Section 4.4: Geology and Soils. The analysis concluded that seismic motion could damage the pipeline and construction activities could create the potential for soil erosion, compaction, and topsoil mixing and expose paleontological resources, but those impacts would be minimized through mitigation measures.
2011-2012 Cadiz Valley Water Conservation, Recovery, and Storage Project EIR	Impacts to geology and soils associated with the conversion of the Northern Pipeline from Cadiz to Wheeler Ridge were analyzed. <i>See</i> 2011 DEIR at 7-32. The EIR concluded that “As the pipeline and proposed pipeline facilities would be reinforced to withstand seismic activity, impacts related to geology, soils, and seismicity would be less than significant and similar to the proposed [Southern Pipeline].” <i>Id.</i>

2020 El Paso Natural Gas ROW Renewal CatEx (DOI-BLM-AZ-0000-2019-0002-CX)	BLM's review of renewal of El Paso Natural Gas pipeline ROW found no significant impacts to soil and soil stability.
2023 Cadiz MLA ROW Assignment CatEx (DOI-BLM-CA-D090-2023-0006-CX)	BLM's review did not identify potential significant impacts to soil and soil stability requiring detailed analysis.
2025 Cadiz Valley Water Conservation, Recovery, and Storage Project Addendum to the 2012 Environmental Impact Report (FEIR Addendum No. 2)	Impacts to geology and soils resulting from the conversion and operation of the Northern Pipeline for water conveyance, including the proposed modifications combined with components evaluated in the 2012 FEIR, were assessed. FEIR Addendum No. 2 at 51. Analysis evaluated the potential for the project to cause negative effects to geology, including the rupture of an earthquake fault, seismic ground shaking, liquefaction, landslides, substantial soil erosion, or loss of topsoil. <i>Id.</i> The analysis noted that the Northern Pipeline is located in a seismically active region, and that components of the project are expected to be subjected to seismic shaking over the life of the project. <i>Id.</i> Because the project will not involve the injection of water or the extraction of crude oil or groundwater, the proposed activities for the Northern Pipeline conversion would not directly or indirectly cause rupture of an active fault or seismic shaking. <i>Id.</i> The analysis found that liquefaction-prone conditions are not present because the depth to groundwater along the existing Northern Pipeline is anticipated to be below excavation depths since the existing pipeline installed in 1985 is not located within saturated soils. <i>Id.</i> Similarly, the proposed support structures for the project would be also located upon relatively flat topography, and the existing pipeline is underground, creating protection from landslides. <i>Id.</i> The project would include ground disturbance activities which could lead to erosion of soils exposed to wind and water. <i>Id.</i> at 52. The implementation of construction related Best Management Practices (BMPs) to prevent soil erosion during construction, will reduce soil erosion impacts. <i>Id.</i> The FEIR Addendum No. 2 concluded the conversion of the Northern Pipeline for water conveyance would not result in substantial changes to geology and soils, cause new significant environmental effects, or result in a substantial increase in the severity of previously identified significant effects. <i>Id.</i> at 54.

1.8 Paleontology

Table 8: Summary of Prior Paleontological Resources Impact Analysis of Existing Pipeline

NEPA/CEQA Review	Summary of Impact Analysis
1984-1985 All American Pipeline EIS/EIR	Environmental review of the All American Pipeline found no significant impacts to paleontology resources. <i>See</i> 1984 DEIS/DEIR at Section 3.2.3.
2002-2005 El Paso Pipeline Conversion EA/EIR	Impacts of construction and operation of a natural gas (converted from oil) pipeline between Ehrenberg, Arizona and Wheeler Ridge, California on paleontology were analyzed in detail. <i>See</i> 2002 El Paso Pipeline Conversion EA/DEIR Section 4.4: Geology and Soils. The analysis concluded that seismic motion could damage the pipeline and construction of the pipeline could expose paleontological resources, but those impacts would be minimized through mitigation measures.
2011-2012 Cadiz Valley Water Conservation, Recovery, and Storage Project EIR	Impacts to paleontological resources associated with the conversion of the Northern Pipeline from Cadiz to Wheeler Ridge were analyzed. <i>See</i> 2011 DEIR at 7-32. The EIR concluded that “with implementation of mitigation measures similar to those of the proposed Project, the Existing Natural Gas Pipeline Alternative impacts to cultural and paleontological resources could be minimized and limited,” and “impacts would be reduced compared to those of the proposed [Southern Pipeline].” <i>Id.</i>
2020 El Paso Natural Gas ROW Renewal CatEx (DOI-BLM-AZ-0000-2019-0002-CX)	BLM’s review of renewal of El Paso Natural Gas pipeline ROW did not identify potential significant impacts to paleontological resources requiring additional analysis.
2023 Cadiz MLA ROW Assignment CatEx (DOI-BLM-CA-D090-2023-0006-CX)	BLM’s review did not identify potential significant impacts to paleontological resources requiring detailed analysis.
2025 Cadiz Valley Water Conservation, Recovery, and Storage Project Addendum to the	Impacts to paleontological resources resulting from the conversion and operation of the Northern Pipeline for water conveyance, including the proposed modifications combined with components evaluated in the 2012 FEIR, were assessed. The FEIR Addendum No. 2 noted that

2012 Environmental Impact Report (FEIR Addendum No. 2)	excavation in previously undisturbed areas may encounter paleontological resources, but determined that impacts would be less than significant with incorporation of mitigation measures CUL-8 through CUL-10, which would be applicable to the use of the Northern Pipeline as proposed in FEIR Addendum No. 2. Therefore, the new proposed use would not increase the severity of significant impacts identified in the previous CEQA document or result in new significant impacts. FEIR Addendum No. 2 at 54.
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1.9 Water Resources

Table 9: Summary of Prior Surface Water and Groundwater Impact Analysis of Existing Pipeline

NEPA/CEQA Review	Summary of Impact Analysis
1984-1985 All American Pipeline EIS/EIR	Impacts of construction and operation of the All American Pipeline on water resources were analyzed in detail. <i>See</i> 1984 DEIS/DEIR at Sections 4.2.4, 4.2.5, 4.3.4, 4.3.5, 4.4.4, 4.4.5, 4.5.4, 4.5.5, 4.6.4, 4.6.5. The analysis concluded that construction activity would not result in impacts to water resources but oil spills during operation as an oil pipeline could result in impacts to surface and groundwater resources.
2002-2005 El Paso Pipeline Conversion EA/EIR	Impacts of construction and operation of a natural gas (converted from oil) pipeline between Ehrenberg, Arizona and Wheeler Ridge, California on water resources were analyzed in detail. <i>See</i> 2002 El Paso Pipeline Conversion EA/DEIR Section 4.5 Hydrology and Water Quality. The analysis concluded that trenching could temporarily change water levels at water wells near the pipeline; however, after implementation of mitigation, those impacts would be less than significant.
2011-2012 Cadiz Valley Water Conservation, Recovery, and Storage Project EIR	Impacts to hydrology and water quality associated with the conversion and operation of the Northern Pipeline from Cadiz to Wheeler Ridge were analyzed as a Project Facility Alternative to the proposed Project (i.e., conveyance of groundwater through the Southern Pipeline). <i>See</i> 2011 DEIR at 7-33. The EIR concluded that “Impacts would be less than significant with the implementation of mitigation measures similar to the proposed [Southern Pipeline].”

2020 El Paso Natural Gas ROW Renewal CatEx (DOI-BLM-AZ-0000-2019-0002-CX)	BLM's review of renewal of El Paso Natural Gas pipeline ROW identified no potential significant impacts to water resources requiring detailed analysis.
2023 Cadiz MLA ROW Assignment CatEx (DOI-BLM-CA-D090-2023-0006-CX)	BLM's review did not identify potential significant impacts to water resources requiring detailed analysis.
2025 Cadiz Valley Water Conservation, Recovery, and Storage Project Addendum to the 2012 Environmental Impact Report (FEIR Addendum No. 2)	Impacts to hydrology and water quality resulting from the conversion and operation of the Northern Pipeline for water conveyance, including the proposed modifications combined with the components evaluated in the 2012 FEIR, were assessed. FEIR Addendum No. 2 at 64. Analysis evaluated whether the project would violate water quality standards, substantially decrease groundwater supplies, substantially alter the existing drainage pattern of an area, create a flood hazard, or conflict with exiting water plans. <i>Id.</i> Project construction could cause pollutants runoff in the form of sediment and other pollutants such as fuels, oil, lubricants, hydraulic fluid, or other contaminant, but Mitigation Measure HYDRO-1 would be implemented to ensure that construction-related Best Management Practices (BMPs) are implemented to prevent adverse impacts to water quality during construction. <i>Id.</i> Regarding groundwater, the analysis notes that the Northern Pipeline would convey groundwater from the Cadiz Valley, and the 2012 FEIR evaluated potential impacts to groundwater in detail and determined that the project would be subject to the Groundwater Management, Monitoring, and Mitigation Plan which would ensure that the project did not substantially decrease water supplies or interfere with groundwater recharge. <i>Id.</i> at 65. See Table 19, below, for a detailed summary of impacts of the Water Project on water resources analyzed in the 2011-2012 EIR. Use of the Northern Pipeline would not increase the capacity of the proposed groundwater extraction facilities evaluated in the 2012 FEIR. <i>Id.</i> The analysis found that water used for pipeline flushing would not result in a significant impact to water supplies, and the impervious surfaces of the pump stations would not significantly impact stormwater infiltration. <i>Id.</i> at 65. Ancillary facilities would be constructed to avoid drainages to the extent feasible and, with application of mitigation measures, no more severe or new significant impacts would occur. <i>Id.</i> at 66. Regarding flooding, mitigation measures would ensure that project facilities would not adversely affect the floodplain. <i>Id.</i> at 66. The FEIR Addendum No. 2 concluded the conversion of the Northern Pipeline for water conveyance would not result in substantial changes to hydrology and water

	quality, cause new significant environmental effects, or result in a substantial increase in the severity of previously identified significant effects. <i>Id.</i> at 67.
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1.10 Visual Resources

Table 10: Summary of Prior Visual Impact Analysis of Existing Pipeline

NEPA/CEQA Review	Summary of Impact Analysis
1984-1985 All American Pipeline EIS/EIR	Visual impacts of construction of the All American Pipeline were analyzed in detail. <i>See</i> 1984 DEIS/DEIR at Sections 4.2.12, 4.3.12, 4.4.12, 4.5.12, 4.6.12. In particular, the analysis found that pipeline construction and operation could result in potential significant visual changes at pumping stations and in the Los Padres National Forest. The pipeline was subsequently constructed and any visual impacts are now part of the existing condition.
2002-2005 El Paso Pipeline Conversion EA/EIR	Visual impacts of construction and operation of a natural gas (converted from oil) pipeline between Ehrenberg, Arizona and Wheeler Ridge, California were analyzed in detail. <i>See</i> 2002 El Paso Pipeline Conversion EA/DEIR Section 4.11 Aesthetic and Visual Resources. The analysis concluded that the project would result in less than significant short-term and long-term impacts to aesthetic/visual resources.
2011-2012 Cadiz Valley Water Conservation, Recovery, and Storage Project EIR	Impacts to aesthetic and visual resources from construction activities associated with the conversion of the Northern Pipeline from Cadiz to Wheeler Ridge were analyzed as a Project Facility Alternative to the proposed Project (i.e., conveyance of groundwater through the Southern Pipeline). <i>See</i> 2011 DEIR at 7-31. The EIR concluded that “As the proposed site is already disturbed with existing facilities and impacts would be limited and short-term, impacts related to aesthetic and visual resources would be less than significant.” <i>Id.</i>
2020 El Paso Natural Gas ROW Renewal CatEx (DOI-BLM-AZ-0000-2019-0002-CX)	BLM’s review of renewal of El Paso Natural Gas pipeline ROW found no potential significant visual impacts requiring detailed analysis.

2023 Cadiz MLA ROW Assignment CatEx (DOI-BLM-CA-D090-2023-0006-CX)	BLM's review did not identify potential significant visual impacts requiring detailed analysis.
2025 Cadiz Valley Water Conservation, Recovery, and Storage Project Addendum to the 2012 Environmental Impact Report (FEIR Addendum No. 2)	Impacts to aesthetics resulting from the conversion of the Northern Pipeline for water conveyance, including the proposed modifications combined with the components evaluated in the 2012 FEIR, were assessed. FEIR Addendum No. 2 at 18. Analysis evaluated whether the project would adversely impact aesthetics, including scenic vistas or other scenic resources, and whether it would create a new source of substantial light or glare which would adversely affect daytime or nighttime views in the area. <i>Id.</i> The Northern Pipeline does not traverse any county, state or federally designated scenic vistas, and proposed project would construct small facilities within an existing utility easement set back from public roadways. The new facilities would not block views and would be obscured by the local topography and vegetation. <i>Id.</i> The FEIR Addendum No. 2 concluded the conversion of the Northern Pipeline for water conveyance would not result in substantial changes to aesthetics, cause new significant environmental effects, or result in a substantial increase in the severity of previously identified significant effects. <i>Id.</i> at 21.

2 Prior Analysis of Water Project

Although the Water Project is a separate project from the conversion of the Northern Pipeline (the subject of the current Proposed Action) and is outside of the scope of the BLM's and DoD's regulatory authority, the BLM and DoD are electing to incorporate by reference prior analyses of the Water Project to address issues raised in past litigation, and because the Applicant submitted those analyses as part of its application.

2.1 Alternatives

Table 11: Water Project and Water Supply Alternatives Analyzed

NEPA/CEQA Review	Water Project and Water Supply Alternatives Considered
1999-2002 Cadiz Groundwater Storage and Dry-Year Supply Program EIS/EIR	The Metropolitan Water District of Southern California and BLM prepared a joint NEPA/CEQA analysis of the Ground Water Storage and Dry-Year Supply Program, which included operations to store water supplies on private land in Cadiz, CA, in addition to the pipeline and power distribution facilities crossing BLM-managed lands to convey water to the Colorado River Aqueduct (the Southern Pipeline) discussed above. Thirteen potential projects for meeting the dry-year supply deficit on the Colorado River Aqueduct were identified and considered, including ten groundwater storage and conjunctive-use projects, one transfer project, and two projects involving desalination of agricultural drainage water. <i>See</i> 2001 FEIS/FEIR at ES-6; 2002 Record of Decision (“ROD”) at 19-20. These alternatives were considered but not analyzed in detail because they were determined not to be feasible or were being considered separately. For the combined Cadiz Groundwater Storage and Dry-Year Supply Project explored in detail, the spreading basin site was selected based on minimizing potential for adverse groundwater impacts and on minimizing environmental impacts by optimizing recharge rate per acre. <i>See</i> 2001 FEIS/FEIR at ES-7.
2011-2012 Cadiz Valley Water Conservation, Recovery, and Storage Project EIR	The Santa Margarita Water District prepared a CEQA analysis of the Cadiz Valley Water Conservation, Recovery, and Storage Project, including operations to conserve and store water supplies on private land in Cadiz, CA, in addition to the pipeline connection to the Colorado River Aqueduct (Southern Pipeline) discussed above. The EIR identifies and compares several

	alternatives, including a No Action Alternative, Water Conservation Alternative, Other Supply Sources Alternative as well as Project Operations Alternatives for both the Groundwater Conservation and Recovery Component and the Imported Water Storage Component. <i>See</i> 2011 DEIR at Chapter 7. Groundwater Conservation and Recovery Component alternatives analyzed in detail included No Project, facilities alternatives, and operations alternatives. <i>See</i> 2011 DEIR at 7-15 to 7-44. Imported Water Storage Component alternatives included spreading basins alternatives, wellfield alternatives, operations alternatives, and conservation/alternate storage alternatives. <i>See</i> 2011 DEIR at 7-46 through 7-51.
2019 Cadiz Valley Water Conservation, Recovery, and Storage Project Addendum to the 2012 Environmental Impact Report (FEIR Addendum No. 1)	The Fenner Valley Water Authority analyzed modifications to the Cadiz Valley Water Conservation, Recovery, and Storage Project, including a modified Southern Pipeline alignment and water treatment facilities. This EIR Addendum did not consider other alternatives.

2.2 Biological Resources

Table 12: Summary of Prior Biological Resources Impact Analysis of Water Project

NEPA/CEQA Review	Summary of Impact Analysis
1999-2002 Cadiz Groundwater Storage and Dry-Year Supply Program EIS/EIR	Impacts of the Water Project on vegetation were analyzed in detail. <i>See</i> 2001 FEIS/FEIR at Section 5.8. The analysis concluded that the project would not result in significant impacts. Impacts of the Water Project on biological resources, including fish, plants, wildlife, and special interest species and habitats were analyzed in detail. <i>See</i> 2001 FEIS/FEIR at Section 5.8. With the adoption of mitigation measures, the FEIS/FEIR concluded there would be no unavoidable adverse impacts.

	BLM initiated formal Section 7 consultation with the U.S. Fish and Wildlife Service in December 1999 with submittal of its Biological Assessment for the Water Project. Following development of the Management Plan element of the Water Project and publication of the Supplement to the Draft EIR/EIS, BLM submitted an Addendum to its Biological Assessment in July 2001. The Biological Opinion, issued on March 20, 2022, concluded that with implementation of mitigation measures, the Water Project is not likely to jeopardize the continued existence of the desert tortoise, or adversely modify its critical habitat. 2002 Biological Opinion at 18, 20.
2011-2012 Cadiz Valley Water Conservation, Recovery, and Storage Project EIR	Impacts from construction and operation on biological resources were analyzed in detail. <i>See</i> 2011 DEIR at Section 4.4. The analysis determined that the Water Project would have a less than significant effect on biological resources with implementation of mitigation measures. The analysis determined that with the implementation of mitigation measures, Water Project construction and operation would have a less than significant effect on all special-status plant and wildlife species found in the project area, including the desert tortoise. <i>See id.</i> The Water Project would also have a less than significant impact on wildlife movement in the area surrounding the project, including bighorn sheep. <i>Id.</i>
2019 Cadiz Valley Water Conservation, Recovery, And Storage Project Addendum To The 2012 Environmental Impact Report	An additional assessment of biological resources was conducted for modifications to the Water Project. <i>See</i> 2019 Addendum at Section IV. This subsequent analysis concluded that impacts to vegetation from construction and operation of the Water Project modifications would be less than significant with mitigation measures. <i>See</i> 2019 Addendum at Section IV. Impacts to biological resources were consistent with those identified in the 2012 FEIR, and any impacts would be less than significant with the implementation of mitigation measures. <i>Id.</i>

2.3 Air Quality

Table 13: Summary of Prior Air Quality Analysis of Water Project

NEPA/CEQA Review	Summary of Impact Analysis
1999-2002 Cadiz Groundwater Storage and Dry-Year Supply Program EIS/EIR	Air quality impacts during construction and operation of the Water Project were analyzed in detail. <i>See</i> 2001 FEIS/FEIR at Section 5.6; 2002 ROD at 16. The analysis concluded that impacts from long-term operation would be insignificant. BLM determined that the project conforms to the applicable State Implementation Plan for the Mojave Desert Air Basin, will not cause or contribute to new violations of any national ambient air quality standards in the affected area, nor increase the frequency or severity of an existing violation. “Additionally, the Cadiz Project is consistent with the Air Quality Attainment Plan prepared by the Mojave Desert Air Quality Management District and the Regional Comprehensive Plan and Guide prepared by the Southern California Association of Governments.” <i>See</i> 2002 ROD at 16. This analysis also considered the possibility of increased dust from the surface of the dry lakes as a result of excessive lowering of the groundwater, but concluded that monitoring and mitigation programs would prevent this potential adverse impact to air quality. <i>See</i> 2001 FEIS/FEIR at 5-108.
2011-2012 Cadiz Valley Water Conservation, Recovery, and Storage Project EIR	Air quality impacts were analyzed in detail. <i>See</i> 2011 DEIR at Section 4.3. The analysis determined long-term operational emissions would be less than significant, and although the Water Project would exceed thresholds of significance for NO _x during construction, these temporary emissions would not conflict with the local air quality plan to control long-term ambient ozone levels.
2019 Cadiz Valley Water Conservation, Recovery, and Storage Project Addendum to the	This analysis concluded that impacts would be consistent with those identified in the 2012 FEIR. <i>See</i> 2019 Addendum at Section III.

2012 Environmental Impact Report	
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2.4 Recreation

Table 14: Summary of Prior Recreation Resources Impact Analysis of Water Project

NEPA/CEQA Review	Summary of Impact Analysis
1999-2002 Cadiz Groundwater Storage and Dry-Year Supply Program EIS/EIR	Recreation impacts during construction and operation of the Water Project were analyzed in detail. <i>See</i> 2001 FEIS/FEIR at Section 5.17. The analysis concluded that impacts from construction and long-term operation would be insignificant. BLM found that the project would not conflict with any established wilderness and recreational uses in the vicinity of the Cadiz Project area including: backpacking; primitive, unimproved site camping; vehicular camping; hiking; horseback riding; nature study and observation; photography and painting; rock climbing; spelunking; hunting and rockhounding; or motorized vehicle and bicycle use on existing routes of travel. <i>See</i> 2001 FEIS/FEIR at Section 5.17.6.
2011-2012 Cadiz Valley Water Conservation, Recovery, and Storage Project EIR	Impacts to recreational resources, including Joshua Tree National Park, Mojave National Preserve, and other public lands were analyzed in detail. <i>See</i> 2011 DEIR at Section 4.14. The analysis concluded that impacts to recreational resources would be less than significant. In particular, groundwater within the Mojave National Preserve would not be affected by the Water Project, since the drawdown would not reach north of I-40. <i>See</i> 2012 FEIR at 3.9-3.
2019 Cadiz Valley Water Conservation, Recovery, And Storage Project Addendum To The 2012 Environmental Impact Report	This analysis did not directly address recreation impacts, but it concluded that land use impacts would be consistent with those identified in the 2012 FEIR. <i>See</i> 2019 Addendum at Section X.

2.5 Cultural and Historic Resources and Tribal Interests

Table 15: Summary of Prior Cultural and Historic Resources Impact Analysis of Water Project

NEPA/CEQA Review	Summary of Impact Analysis
1999-2002 Cadiz Groundwater Storage and Dry-Year Supply Program EIS/EIR	Impacts of the Water Project on historic and cultural resources and Indian Trust Assets were analyzed in detail. <i>See</i> 2001 FEIS/FEIR at Sections 5.15 and 5.18; 2002 ROD at 16-18; 2002 ROD at Appendix D. BLM conducted formal consultation under Section 106 of the National Historic Preservation Act, including with three Tribes determined to be affected: Fort Mojave Indian Tribe, Chemehuevi Indian Tribe, and Colorado River Indian Tribes (CRIT). Metropolitan and BLM also coordinated and consulted with the California Native American Heritage Commission, and notified the following Tribes during scoping: Agua Caliente Band of Cahuilla Indians; Augustine Band of Cahuilla Indians; Cabazon Band of Cahuilla Indians; Chemehuevi Indian Tribe; Colorado River Indian Tribes; Fort Mojave Indian Tribe; Los Coyotes Band of Cahuilla and Cupeno Indians; Morongo Band of Mission Indians; Torres Martinez Desert Cahuilla Indians; Twenty Nine Palms Band of Mission Indians. <i>See</i> 2001 FEIS/FEIR at 12-8. Only the Fort Mojave Indian Tribe responded to the initial notification and a meeting was held with the Tribe in June 1999. <i>Id.</i> The major concerns raised in their letter were potential impacts to cultural resources and biological resources within the Colorado River region and concern over the continued exportation of Colorado River water from the area. <i>Id.</i> A meeting with the Colorado River Indian Tribes was held on August 17, 2001 to discuss cultural and religious issues. Pursuant to the State Protocol Agreement (1998) between the BLM in California and the California State Historic Preservation Officer, and in accordance with 36 CFR Part 800, BLM identified historic properties that may be located within the area of potential effect (APE) for the Water Project, assessed the effect of the Water Project on the historic properties, and determined that with modifications that have been incorporated into the Water Project, it will have no effect on any qualities or values that may qualify any cultural resource located within the APE for inclusion on the National Register of Historic Places. <i>See</i> 2001 FEIS/FEIR at 12-8; Appendix D.

	The consultation concluded that “No properties of religious or cultural significance to Native Americans have been identified within the [Water] Project area.” 2002 ROD at 17. The analysis found that the project would avoid adverse impacts to cultural resources, Native American cultural values, sacred sites, and historic properties. Of the 12 cultural sites identified in the Area of Potential Effect for the selected alternative, four sites were found eligible for inclusion on the National Register of Historic Places and BLM required modification and conditions to the project sufficient to avoid adverse effects to these four properties. Mitigation was required to provide for monitoring during construction, a Buried Site Testing Plan, and preparation of a post-construction report.
2011-2012 Cadiz Valley Water Conservation, Recovery, and Storage Project EIR	Impacts from project construction and operation on historic and cultural resources were analyzed in detail. <i>See</i> 2011 DEIR at Section 4.5. The analysis determined that the Water Project would have a less than significant effect on historical resources, archaeological resources, paleontological resources, human remains, and Indian Trust Assets with implementation of mitigation measures.
2019 Cadiz Valley Water Conservation, Recovery, and Storage Project Addendum to the 2012 Environmental Impact Report	An additional assessment of historic and cultural resources was conducted for the Water Project modifications and concluded that project impacts would be less than significant with mitigation measures. <i>See</i> 2019 Addendum at Section V.

2.6 Lands and Realty

Table 16: Summary of Prior Lands and Realty Resources Impact Analysis of Water Project

NEPA/CEQA Review	Summary of Impact Analysis
1999-2002 Cadiz Groundwater Storage and Dry-Year Supply Program EIS/EIR	Impacts of the Water Project on land uses, including BLM special designated lands, agricultural land uses, transportation, and plan consistency were analyzed in detail. <i>See</i> 2001 FEIS/FEIR at

	Section 5.2. The analysis identified negligible impacts to land use, and certain Southern Pipeline alignments would require amendment of the California Desert Conservation Area plan.
2011-2012 Cadiz Valley Water Conservation, Recovery, and Storage Project EIR	Impacts of the Water Project on land use and planning were analyzed in detail. <i>See</i> 2011 DEIR at Section 4.10. The analysis concluded that land use and planning impacts were less than significant and no mitigation measures were required. Socioeconomic impacts were determined to be beneficial.
2019 Cadiz Valley Water Conservation, Recovery, And Storage Project Addendum To The 2012 Environmental Impact Report	This analysis concluded that land use impacts would be consistent with those identified in the 2012 FEIR. <i>See</i> 2019 Addendum at Section X.

2.7 Soils and Geology

Table 17: Summary of Prior Soil and Geology Resources Impact Analysis of Water Project

NEPA/CEQA Review	Summary of Impact Analysis
1999-2002 Cadiz Groundwater Storage and Dry-Year Supply Program EIS/EIR	Impacts of the Water Project on topography, geology, seismicity and soils were analyzed in detail. <i>See</i> 2001 FEIS/FEIR at Section 5.4. The analysis concluded that the Water Project would not significantly impact topography. Potentially significant impacts to soil resources such as liquefaction, slope and foundation instability, erosion/sedimentation, land surface subsidence and hydrocompaction would be reduced through implementation of mitigation measures. Project facilities would be subject to regional seismic hazards throughout the life of the project.
2011-2012 Cadiz Valley Water Conservation, Recovery, and Storage Project EIR	Impacts on soils and geology were analyzed in detail. <i>See</i> 2011 DEIR at Section 4.6. The analysis determined that the Water Project would have a less than significant effect on erosion of soils and geological resources with implementation of mitigation measures.

2019 Cadiz Valley Water Conservation, Recovery, And Storage Project Addendum To The 2012 Environmental Impact Report	Analysis concluded that impacts on geology and soil resources from the Water Project modifications are consistent with those identified in the 2012 FEIR. <i>See</i> 2019 Addendum at Section VI.
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2.8 Paleontology

Table 18: Summary of Prior Paleontology Resources Impact Analysis of Water Project

NEPA/CEQA Review	Summary of Impact Analysis
1999-2002 Cadiz Groundwater Storage and Dry-Year Supply Program EIS/EIR	Impacts from the Water Project on paleontological resources were analyzed in detail. See 2001 FEIS/FEIR at Section 5.16. The analysis identified potential impacts to paleontological resources and identified mitigation measures to reduce those effects. 2001 FEIS/FEIR at 5-268.
2011-2012 Cadiz Valley Water Conservation, Recovery, and Storage Project EIR	Impacts from the Water Project on paleontological resources were analyzed in detail. See 2011 DEIR at Section 4.5. The analysis determined that there was a high likelihood that paleontological resources would be encountered in certain areas and identified mitigation measures to reduce impacts to less than significant levels.
2019 Cadiz Valley Water Conservation, Recovery, And Storage Project Addendum To The 2012 Environmental Impact Report	This analysis concluded that impacts on paleontological resources would be minimized by implementation of mitigation measures consistent with the 2012 FEIR. <i>See</i> 2019 Addendum at Section V-VI.

2.9 Water Resources

Table 19: Summary of Prior Water Resource Impact Analysis of Water Project

NEPA/CEQA Review	Summary of Impact Analysis
1999-2002 Cadiz Groundwater Storage and Dry-Year Supply Program EIS/EIR	Impacts of the Water Project to surface and groundwater quality and quantity were analyzed in detail. <i>See</i> 2001 FEIS/FEIR at Section 5.5; 2002 ROD at 12. This included analysis of groundwater recharge, springs, the Bristol, Cadiz and Fenner groundwater basins, adjacent groundwater basins, and the potential for increased dust mobilization from Bristol and Cadiz dry lakebeds. BLM and the Metropolitan Water District of Southern California, in cooperation with the National Park Service (NPS), U.S. Geological Survey (USGS), and the County of San Bernardino, developed a Groundwater Monitoring and Management Plan (2001 GMMP) to allow early indication of potential risks to prevent damage to critical resources. <i>See</i> 2001 FEIS/FEIR at Volume IV. A key element of the 2001 GMMP is the creation of a Technical Review Panel made up of representatives of NPS, USGS, BLM, the County, and other State, Federal, and local agencies as appropriate to advise BLM on technical aspects of the project's operation. BLM concluded that the 2001 GMMP was conservatively designed to ensure that the project will not result in any adverse impacts to critical resources, regardless of the amount of natural recharge. <i>See</i> 2002 ROD at 5.

2011-2012 Cadiz Valley Water Conservation, Recovery, and Storage Project EIR	Impacts of the Water Project to surface and groundwater quality and quantity were analyzed in detail. <i>See</i> 2011 DEIR at Section 4.9; 2012 FEIR at 644-646 (Master Response on Groundwater Recharge Estimates and Evaporation Estimates). Following the 1999-2002 EIS/EIR, additional site-specific fieldwork was conducted regarding water resources to inform this CEQA analysis. <i>See</i> 2011 DEIR at Appendix H. In addition to groundwater and surface water quality and quantity, impacts to drinking water aquifers, wetlands, and floodplains were also assessed. <i>See</i> 2011 DEIR at Section 4.9. The EIR analyzed potential impacts to springs in detail, including Bonanza Spring which is located north of Fenner Gap in the Clipper Mountains. “An evaluation of the springs concluded that there is no physical connection of the springs in the higher elevation mountains to the groundwater in the aquifer in the valleys where Project pumping would occur.” 2011 DEIR at 4.9-19. “There is no observed hydraulic continuity between groundwater in fractured granitic bedrock where the springs exist and the regional groundwater table of the alluvial aquifer.” 2011 DEIR at 4.9-19. The EIR concluded that “the physical evidence indicates that the groundwater aquifer is not connected to the springs within the Watersheds and therefore, pumping of groundwater under the proposed Project would have no impact on these springs and no mitigation is required.” 2011 DEIR at 4.9-61. Out of an abundance of caution, despite the conclusion that the Water Project would not impact springs, a monitoring protocol was developed (see description below) to confirm protection of the springs. This EIR addressed questions about estimates of the rate of groundwater recharge to the Fenner Watershed. The analysis explained that earlier hydrology studies and recharge estimates published between the 1980s and 2000 “were either general in nature” or “were relying on minimal sets of data and assumptions to account for the lack of extensive site-specific data.” 2011 DEIR at 4.9-33. The EIR instead relied on recharge estimates calculated in 2010 that “include more local and site-specific information with larger data sets, thus enabling more reasonable and accurate recharge estimates.” 2011 DEIR at 4.9-33 through 4.9-37. The analysis concluded that “[t]he Project will not substantially deplete groundwater supplies or interfere with groundwater recharge,” and that “pumping of groundwater under the proposed Project would have no impact on springs and therefore no mitigation is required.” 2011 DEIR at 4.9-73. The CEQA review was predicated in part on the adoption of a revised Groundwater Management, Monitoring and Mitigation Plan (GMMMP) which expands on the 2001 GMMMP
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	drafted during the previous BLM and Metropolitan Water District of Southern California analysis. 2012 FEIR Appendix B1. Overseen by a Technical Review Panel, the GMMMP incorporates additional safeguards and action criteria to avoid adverse impacts to surface and groundwater. The GMMMP provides binding measures that govern the operation and management of the Water Project, and is supported by a 2012 Memorandum of Understanding (MOU) between Cadiz, the Santa Margarita Water District (SMWD), Fenner Gap Mutual Water Company (FGMWC, formerly known as Fenner Valley Mutual Water Company or FVMWC) and the County of San Bernardino. The GMMMP sets forth a plan of action to optimally manage groundwater resources and monitor and mitigate physical effects of the Water Project. Key features of the GMMMP are summarized below: • The GMMMP is designed to avoid significant adverse impacts and Undesirable Results to groundwater aquifers tapped by the Water Project; local springs within the Fenner Watershed; brine resources of Bristol and Cadiz Dry Lakes; air quality in the Mojave Desert region; vegetation in the Mojave Desert region; and adjacent areas, including the Colorado River and its tributary sources of water. It prescribes corrective measures to address any potential significant adverse impacts to critical resources or Undesirable Results attributed to the Water Project. • The GMMMP requires monitoring of aquifer health and safe yield, groundwater levels and rates of decline, groundwater quality, subsidence, surface vegetation, air quality, third-party wells and springs. • The GMMMP requires a comprehensive network of monitoring features and data collection facilities, which include: local springs; observation wells at various locations, several of which will be clustered wells with depth-discrete screened intervals; project production wells; land survey benchmarks and extensometers; downhole flowmeter surveys; gamma-ray and dual induction electric logs; nephelometers for dust monitoring; and weather stations. • The GMMMP establishes a process for scientific review of the observations and data obtained from monitoring features and facilities, and sets forth action criteria. It also
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	provides, if appropriate, corrective measures to be taken if an action criterion is or may be triggered. • Compliance with the GMMMP is overseen and enforced by the County consistent with San Bernardino County's Desert Groundwater Management Ordinance. SMWD is the Water Project's lead agency with responsibility for mitigation of project impacts pursuant to the EIR and Public Resources Code section 21081.6. San Bernardino County has shared enforcement responsibilities with regard to those impact areas and mitigations in the EIR's Mitigation Monitoring and Reporting Program (MMRP) that fall within San Bernardino County's jurisdiction pursuant to the MOU and Ordinance. • SMWD, as lead agency, and San Bernardino County, retain full authority and discretion to modify Water Project operations (including but not limited to the institution of corrective actions or the curtailment or cessation of Water Project-related groundwater pumping) as necessary to avoid Overdraft or Undesirable Results as such terms are defined in the MOU. • A Technical Review Panel (TRP) assists in evaluating monitoring protocols and methods of data collection and processing, water quality, the rate of decline in the groundwater elevations, monitoring the level of the water table in the Cadiz Wellfield in relation to an established safe floor (bottom elevation for groundwater levels), and the Water Project's potential to cause Undesirable Results, as defined in the MOU. The TRP may make recommendations to San Bernardino County, or the County may request recommendations from the TRP that require additional monitoring, mitigation, and modification to Water Project operations. • The GMMMP requires that all technical data be made available to the public in the form of annual reports reviewed and maintained by San Bernardino County, and it also calls for periodic refinements to the project groundwater model and incremental five-year projections of the physical impacts of Project operations to be set forth in periodic reports, together with any recommendations for Project improvements.
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	The EIR concluded that with implementation of mitigation, as described in the GMMMP, the impacts of the Water Project to water resources would be less than significant. <i>See</i> 2011 DEIR at 4.9-80.
<i>Center for Biological Diversity v. County of San Bernardino</i>, No. 30-2012-00612947; <i>Delaware Tetra Tech. Inc. v. County of San Bernardino</i>, No. 30-2013-00636391; <i>Center for Biological Diversity v. County of San Bernardino</i>, No. 30-2013-00633936; <i>Delaware Tetra Technologies, Inc. v. County of San Bernardino</i>, No. 30-2013-	Six cases were filed in 2012 in Orange County Superior Court challenging the sufficiency of various aspects of the 2011-2012 EIR. In decisions issued in 2014, the trial court dismissed the plaintiffs' complaints in each case and upheld the 2011-2012 EIR.

00635125; <i>Delaware Tetra Technologies, Inc. v. Santa Margarita Water</i>, No. 30-2012-00576715; <i>Delaware Tetra Technologies, Inc. v. Santa Margarita Water Dist.</i>, No. 30-2012-00594355	
<i>Center for Biological Diversity v. County of San Bernardino</i>, No. G051058; <i>Delaware Tetra Tech. Inc. v. County of San Bernardino</i>, No. G050858; <i>Center for Biological Diversity v. County of San Bernardino</i>, No. G051080; <i>Delaware Tetra Technologies, Inc. v. County of San Bernardino</i>, No. G050881; <i>Delaware Tetra Technologies, Inc. v. Santa Margarita Water</i>, No. G050869; <i>Delaware Tetra Technologies, Inc. v. Santa Margarita Water Dist.</i>, No. G050864	Six appeals of the Orange County Superior Court’s decisions upholding the 2011-2012 EIR were filed in California’s Fourth District Court of Appeal. The appellate court upheld the trial court’s decision in each case.
2019 Cadiz Valley Water Conservation, Recovery, and Storage Project Addendum to the 2012 Environmental Impact Report (“2019 Addendum”)	Fenner Valley Water Authority issued an addendum to the 2012 FEIR in order to analyze proposed modifications to the Water Project as well as certain studies that were released since certification of the 2012 FEIR relating to the local natural springs. The Addendum concluded there would be no significant adverse impacts from these project changes and concluded that the natural springs are protected from adverse impacts. <i>See</i> 2019 Addendum at Section IX. Since the certification of the 2012 FEIR, two reports (A. Zdon et al., <i>Understanding the source of water for selected springs within Mojave Trails National Monument, California</i> (2018); Love & Zdon, <i>Use of Radiocarbon Ages to Narrow Groundwater Recharge Estimates in the</i>

	<i>Southeastern Mojave Desert</i> (2018)) were published offering a conceptual theory about a possible hydraulic connection between local natural springs (including Bonanza Spring, which is located in the Mojave Trails National Monument) and the underlying aquifer. In June 2018 and January 2019, Dr. David Kreamer, a UNLV Hydrology Professor, prepared an external peer review refuting, respectively, the Zdon et al. report (2018) and the Zdon & Love (2018) report. Dr. Kreamer found significant flaws in both reports, noted that the findings of those reports are “directly contradicted by available spring temperature and flow data, the concentration of major ions in spring water, stable isotopic data, and the geological environment surrounding the spring,” and concluded that the data did not indicate a connection between the springs and the aquifer. Dr. Kreamer concluded that the Zdon et al. report did not “present any physical hydrogeology (numerical modeling, geologic cross sections etc.) to demonstrate there is any hydraulic connection between the alluvial aquifer and the spring, and the data indicate otherwise.” Dr. Kreamer concluded that the Zdon & Love report suffered from critical weaknesses which undercut and invalidated its conclusions, and contained serious methodological omissions in interpretation of recharge and average groundwater residence time, which ultimately influenced the interpretation for the hydrogeology of the study area. Three Valley Municipal Water District retained four groundwater professionals to conduct an independent peer review to assess the conclusions of the 2012 FEIR and the effectiveness of the GMMMP. <i>See</i> 2019 Addendum Appendix D. The 2019 independent peer review also addressed concerns presented in the Zdon reports and concluded that the evidence presented in 2012 FEIR accurately reflected the best available science, and that the GMMMP provides “appropriate and sufficient management and monitoring” to identify and mitigate any impacts. In summary, the 2019 Addendum concluded that “the Zdon report and the Love and Zdon report prepared since the certification of the 2012 FEIR do not contain any new information that changes the conclusions of the analysis in the 2012 FEIR with respect to potential adverse effects on natural springs.” 2019 Addendum at 66. This analysis supported the conclusions in the 2012 FEIR, including that there is no evidence of a hydraulic connection between the Cadiz aquifer and Bonanza Spring. The GMMMP contains
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	further safeguards to identify and address any adverse impacts to regional water resources, including those in the Mojave Trails National Monument.
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In addition to the detailed NEPA and CEQA analyses summarized above, surface and groundwater conditions and impacts have been analyzed in numerous scientific studies, which are hereby incorporated by reference:

Table 20: Water Project Groundwater Studies

Title	Author	Summary
2000 Review of the Cadiz Groundwater Storage and Dry-year Supply Program Draft Environmental Planning Technical Report, Groundwater Resources, Volumes I and II	USGS	In comments on BLM's 1999 DEIS analyzing the Water Project, USGS estimated aquifer recharge rates using a modified Maxey-Eakin model (1949). USGS's review concluded that the DEIS overestimated the natural recharge to the basin. USGS estimated a recharge rate of between approximately 2,000-10,000 AFY.
2000 Estimating Annual Precipitation in the Fenner Basin of the Eastern Mojave Desert	U.S. DOE Lawrence Livermore National Laboratory	Study concluded that groundwater recharge rates published by USGS in 2000 underestimated recharge to the Fenner Watershed due to failure to account for site-specific geological and hydrological parameters. Authors conservatively suggested a recharge rate of 7,864 AFY for purposes of environmental impact analysis. This analysis was cited in the 2012 FEIR, at 3.1-6.
2010 Study of Cadiz Groundwater Conservation and Storage Project	CH2M HILL	Year-long study utilizing field data and a new desert model published by USGS that estimated the watershed contains 17-34 million acre-feet in storage, is naturally recharging at 32,500 acre-feet per year, and can sustainably support a water supply and storage project. This analysis was incorporated into the 2011 DEIR in Appendix H1.

2012 Estimated Evaporation from Bristol and Cadiz Dry Lakes	CH2M HILL	Analysis of evaporation monitoring data estimated evaporation rates from Bristol and Cadiz Dry Lake at approximately 7,860 and 23,730 acre-feet per year, respectively, for a total combined rate of 31,590 acre-feet per year. This analysis was incorporated into the 2012 FEIR as Appendix L1.
2012 Quantifying Evaporative Discharge from Bristol and Cadiz Dry Lakes	Desert Research Institute	Report containing evaporation data collected at the Bristol Dry Lake and Cadiz Dry Lake study sites in 2011. The report was incorporated into the 2012 FEIR as Appendix L2.
2018 Updated Assessment of Water Project Potential Impact on Bonanza Springs	Miles Kenney, Ph.D. and Terry Foreman, CHG	Field study concluding that fault zones creating Bonanza Springs catchment area also separate the rock aquifer that feeds the Bonanza Springs from the Fenner Valley aquifer approximately 1,000 feet below. Data were peer reviewed and supported by 10 geologists, hydrologists, hydrogeologists, and engineers.
2018 and 2019 Peer Reviews of Studies Regarding Recharge and Water Sources of Mojave Desert Springs Near Water Project	David K. Kreamer, Ph.D.	Peer-review of prior studies concluding that the nearest Mojave Desert spring, Bonanza Spring, which is 11 miles away and separated from the Water Project area by over 1,000 feet of elevation, is fed from rainfall, and is not connected to the aquifer underlying the Water Project.
2019 Report of the Independent Peer Review Panel for the GMMMP for the Cadiz Project	Aquilogic et al.	Independent peer review prepared as part of the EIR addendum concluded that the GMMMP (1) provided sufficient management and monitoring to identify any Undesirable Results that could occur in response to proposed groundwater pumping as part of the Cadiz Project; and (2) provided effective Corrective Measures (i.e., mitigation). The review also found that the weight of credible data obtained to date demonstrates there is no direct hydraulic connection between the springs and a regional groundwater table in the alluvial aquifer.

Informing Future Management Decisions by Comparison of the Largest Freshwater Spring in the Southeastern Mojave Desert with Groundwater Quality from Downgradient Wells, Mojave Trails National Monument, USA	David K. Kreamer, Ph.D. Luke Stevens	Scientific study published in <i>Hydrogeology Journal</i> (Nov. 13, 2025) regarding long-term sustainability of Bonanza Spring, including the potential relationship and connectivity between Bonanza Spring water and the possible sources of its flow. The analysis states that multiple lines of evidence show that Bonanza Spring and the wells in the Cadiz area of the Bristol/Cadiz Basin do not have a subsurface connection or common source, and rebuts hypotheses to the contrary.
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2.10 Visual Resources

Table 21: Summary of Prior Visual Impact Analysis of Water Project

NEPA/CEQA Review	Summary of Impact Analysis
1999-2002 Cadiz Groundwater Storage and Dry-Year Supply Program EIS/EIR	Visual impact of the Water Project was analyzed in detail. <i>See</i> 2001 FEIS/FEIR at Section 5.14; 2002 ROD at 15. The analysis concluded that: “View changes as a result of construction of the Cadiz Project will result from disturbance of native vegetation, which will take a substantial period of time to reestablish and mature. However, these view changes will only be noticeable from limited portions of nearby BLM Wilderness Areas and eventually will mature enough to render the area disturbed indistinguishable from the surrounding landscape. Project facilities such as spreading basins and the wellfield will be evident from near views, but will be subordinate to the panoramic views of mountains and open expanse from further distances. In addition, spreading basins will only be noticeable on intermittent occasions when filled with water. Overhead power distribution facilities, while visible from portions of the nearby BLM Wilderness Areas within the region, would be viewed against the backdrop of distant mountain ranges and would be subordinate to these panoramic views. Mitigation measures are included to minimize potential impacts related to glare and night lighting.” 2002 ROD at 15.
2011-2012 Cadiz Valley Water Conservation, Recovery, and Storage Project EIR	Visual impacts from Water Project construction and operation were analyzed in detail. <i>See</i> 2011 DEIR at Section 4.1. The analysis determined that the Water Project would have a less

	than significant effect on scenic vistas, scenic resources, visual character, and light and glare with implementation of mitigation measures.
2019 Cadiz Valley Water Conservation, Recovery, and Storage Project Addendum to the 2012 Environmental Impact Report	This subsequent analysis concluded that impacts from construction and operation to visual resources from modifications to the Water Project would be consistent with those identified in the 2012 FEIR. <i>See</i> 2019 Addendum at Section I.