

FINAL

Initial Study / Mitigated Negative Declaration

Mid-Canal Storage Project

State Clearinghouse # 2022120628



**COACHELLA VALLEY
WATER DISTRICT**

Prepared for:
Coachella Valley Water District
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Acronyms and Abbreviations

APE	Area of Potential Effects
APN	Assessor Parcel Number
BLM	Bureau of Land Management
BMPs	Best Management Practices
BOR	Bureau of Reclamation
CDFW	California Department of Fish and Wildlife
CalEEMod	California Emissions Estimator Model
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CFS	Cubic Feet Per Second
CVWD	Coachella Valley Water District
CVWMP	Coachella Valley Water Management Plan
CWA	Clean Water Act
EA	Environmental Assessment
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
EPA	Environmental Protection Agency
ESA	Endangered Species Act
ESA	Environmental Site Assessment (Hazardous Materials)
FONSI	Finding of No Significant Impact
IID	Imperial Irrigation District
IS	Initial Study
ITAs	Indian Trust Assets
LCR	Lower Colorado River
MND	Mitigated Negative Declaration
MSHCP	Multi-Species Habitat Conservation Program
NAHC	Native American Heritage Commission
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NOA	Notice of Availability
NOI	Notice of Intent
NRHP	National Register of Historic Places
NWR	National Wildlife Refuge
O&M	Operation and Maintenance
OHWM	Ordinary High-Water Mark
PCN	Preconstruction Notification
POLs	Petroleum, Oil, and Lubricants
QSA	Quantification Settlement Agreement
Reclamation	Bureau of Reclamation
RMP	Coachella Canal Area Resource Management Plan
SSAB	Salton Sea Air Basin
SHPO	State Historic Preservation Office
SLRIWA	San Luis Rey Indian Water Authority
SWPPP	Stormwater Pollution Prevention Plan
USFWS	United States Fish and Wildlife Service
USACE	United States Army Corps of Engineers
YAO	Yuma Area Office

CHAPTER 1 - INTRODUCTION

1.1 Purpose of this Final Initial Study / Mitigated Negative Declaration Document

Coachella Valley Water District (CVWD) has prepared this Initial Study/Mitigated Negative Declaration (IS/MND) to evaluate the potential environmental impacts related to implementation of Mid-Canal Storage project (the "project"). The project would expand the water storage capacity of the Coachella Canal and create operational flexibility in water deliveries by CVWD, while addressing long term maintenance of degraded sections of the Coachella Canal.

CVWD is the lead agency for the project under the California Environmental Quality Act (CEQA). CVWD has prepared this IS to determine whether an Environmental Impact Report (EIR), Negative Declaration, or Mitigated Negative Declaration (MND) is needed. The IS evaluates the potential environmental consequences associated with the Mid-Canal Storage Project and discloses to the public and decision makers the potential environmental effects of the project. Based on the analysis presented herein, an MND is the appropriate level of environmental documentation for the project

As described in detail in Chapter 2, CVWD proposes to enter into an agreement with Reclamation to modify a segment of the Coachella Canal within the Coachella Canal Lining Project (CCLP). Both CVWD and Reclamation have discretionary authority for project approval, triggering requirements of CEQA for CVWD, and requirements of the National Environmental Policy Act (NEPA) for Reclamation. Reclamation must review and approve the project as it constitutes a change to Reclamation-owned facilities, as provided for in CVWD's contract and in Reclamation's Directives and Standards CMP 10-05, dated March 6, 2020.

1.2 Scope of This Final IS/MND Document

This IS/MND has been prepared in accordance with CEQA (as amended) (Public Resources Code [PRC] Sections 21000 et. seq.); the 2022 State CEQA Guidelines (California Code of Regulations, Title 14, Chapter 3, Sections 15000 et. seq.), as updated on December 28, 2018; and CVWD's Local CEQA Guidelines (2022).

CEQA Guidelines Section 15063 describes the requirements for an IS and Sections 15070-15075 describe the process for the preparation of an MND. Where appropriate, this document makes reference to either the CEQA Statute or CEQA Guidelines. This IS/MND includes all of the contents required by CEQA, which include a project description, a description of the environmental setting, potential environmental impacts, mitigation measures for any significant effects, consistency with plans and policies, list of references cited, and names of preparers.

This IS/MND evaluates the potential for environmental impacts to resource areas identified in Appendix G of the State CEQA Guidelines. The environmental resource areas analyzed in this document include:

- Aesthetics
- Agriculture and Forestry Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Energy
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation
- Tribal Cultural Resources
- Utilities and Service Systems
- Wildfire
- Mandatory Findings of Significance

1.3 Environmental Review

In accordance with CEQA Guidelines Sections 15072-15073, CVWD provided a Notice Of Intent To Adopt A Mitigated Negative Declaration to the public, responsible agencies, trustee agencies, the State Clearinghouse and the Imperial County Clerk in which the proposed project is located, to allow the public and agencies a public review period provided under Section 15105.

CVWD mailed the Notice of Intent to Adopt a Mitigated Negative Declaration to the last known name and address of all organizations and individuals who previously requested such notice in writing and also gave Notice of Intent to Adopt a Mitigated Negative Declaration by publication in The Desert Sun and La Prensa Hispana newspapers. The public review Draft IS/MND was circulated for public comment from December 23, 2022 through January 23, 2023. Comment letters were received from four public agencies including:

- California Department of Fish and Wildlife
- California Department of Water Resources, Division of Safety of Dams
- California Department of Transportation
- Imperial Irrigation District

This Final IS/MND includes the Draft IS/MND with minor revisions made in response to comments received during the public review period (shown in underline and ~~strikeout~~ in the text), a Chapter 6: Comments and Responses to Comments, and a Mitigation Monitoring and Reporting Program in conformance with the CEQA Guidelines section 15097. Appendix G has been added containing the four comment letters received. CVWD’s Board of Directors will consider adopting the Final IS/MND and MMRP in compliance with CEQA at its regular publicly noticed meeting on February 14, 2023. If adopted and the Project is approved by the Board, a Notice of Determination will be filed within five days to the State Clearinghouse and the Imperial County Clerk.

1.4 Impact Terminology

The format of this environmental review study is based upon the State’s 2022 CEQA Guidelines, Appendix G Environmental Checklist Form, and is presented as follows. The project is evaluated based on its effect on 20 major categories of environmental resource topics. Each resource topic is reviewed by responding to a series of questions regarding the impact of the project on each element of the resource topic. The IS checklist provides a formatted analysis and determination of the effects of the project on the applicable resource topics and each element. The effect of the project is categorized into one of the following four categories of possible determinations:

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
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Substantiation is then provided to justify each determination. One of the four following conclusions is provided with a summary of the analysis for each of the major environmental factors.

1. **No Impact:** No impacts are identified or anticipated, and no mitigation measures are required.
2. **Less than Significant Impact:** No significant adverse impacts are identified or anticipated, and no mitigation measures are required.
3. **Less than Significant Impact with Mitigation Incorporated:** Possible significant adverse impacts have been identified or anticipated and mitigation measures are required as a condition of project approval to reduce these impacts to a level that is less than significant.
4. **Potentially Significant Impact:** Significant adverse impacts have been identified or anticipated according to the threshold criteria identified for the resource, even after mitigation strategies are applied and/or an adverse effect that could be significant and for which no mitigation has been identified. An Environmental Impact Report (EIR) must be prepared required to evaluate these impacts to meet the requirements of CEQA.

A detailed Project Description is provided in Chapter 2 that follows with details of the purpose and need for the project, followed by a description and maps of the project location, elements, and environmental setting. Proposed construction details are explained, and long-term operations are described. The

Project Description also presents a list of other agencies that may rely upon this IS/MND in their related permitting decisions and describes the Tribal consultation process conducted by CVWD as a part of its environmental review process.

CHAPTER 2 - PROJECT DESCRIPTION

2.1 Project Overview

The Coachella Canal is a branch of the All-American Canal that imports Colorado River water into the Imperial and Coachella Valleys. The Coachella Canal is owned by the U.S. Bureau of Reclamation (Reclamation) and operated and maintained by the Coachella Valley Water District (CVWD) for distribution of water for agricultural irrigation. The canal was constructed between 1937 and 1949 to support groundwater replenishment, and agricultural irrigation. The canal extends 123.5 miles from its diversion from the All American Canal ("Drop 1") to its terminus at Lake Cahuilla in the Coachella Valley. Elevation of the canal drops approximately one foot per mile which provides hydraulic head for gravity flow through the entire length of the canal. Only the northern 38 miles were concrete lined for the original canal, with the remaining 85 miles constructed as earthen canal. To control seepage losses, a new parallel concrete lined canal was constructed in 1979 to 1980 to replace the first 49 miles of the Coachella Canal. (Trover, 2016)

The Coachella Canal Lining Project (CCLP) is a water conservation project constructed between 2004 and 2007 that was completed under an agreement between Reclamation, the San Diego County Water Authority (SDCWA) and the Indian Water Authority (IWA), the project proponents. CCLP construction was completed in 2007 consisting of a parallel 36.5-mile-long segment between Siphon 7 (milepost 49.3) and Siphon 32 (mile-post 86.1). The CCLP is a new parallel concrete lined canal that replaced the adjacent earthen portion of the Coachella Canal as a means of reducing seepage losses to conserve water and make that water available for transfer to SDCWA. CVWD and SDCWA are applying for Reclamation's approval and will enter into an agreement for the Mid-Canal Storage Project involving modifications to a 4.9-mile segment of the canal to reduce CCLP maintenance problems with the concrete lining, and to create a small storage reservoir allowing greater operational flexibility. The change would join the concrete lined canal with the original earthen canal to create a single wider channel as a linear reservoir between siphons 11 and 14, with a capacity of up to 728 acre-feet.

2.2 Purpose and Need for the Project

The purpose and need of the project is to reduce excessive CCLP maintenance repairs and improve operational and water management efficiency within a 4.9 mile segment of the existing Coachella Canal. This segment of the lined canal crosses heavy clay soils that shrink and swell seasonally resulting in cracked panels of the concrete lining that have required significant maintenance.

Coachella Canal operations are challenging for several reasons:

- Long distances from source of water to delivery areas.
- Lengthy delays to get flow changes downstream.
- Lack of operating storage.

- Coordination with Reclamation and Imperial Irrigation District (IID) for water orders.

Construction of the CCLP created a loss of in-canal storage due to the reduction in size of the concrete lined canal section compared to the older earthen canal section, resulting in additional operational difficulties. In 2015 a study was conducted to evaluate hydraulic operations and water storage possibilities (*Feasibility Study to Investigate Storage Requirements for the Coachella Canal* by Dahl Consultants and Rogers Engineering Hydraulics Inc.). The study reported the following conclusions:

- Water storage is necessary to manage large, rapid delivery flow changes that affect Coachella Canal operations.
- The reduced canal channel size and the restrictions imposed by drawdown limitations both resulted in significantly less operational storage in the middle portion of the canal system.
- A number of off-canal sites in the area of North Shore were evaluated but none were found feasible due to construction cost, and operational limitations since an affordable all-gravity system could not be identified.
- Alternative methods of using storage exist, including active management of canal water levels to use in-canal storage and diverting canal water to or from reservoirs near the canal (off-canal storage).
- Lake Cahuilla at the northern terminus of the canal should continue to be used to provide storage for major imbalances between total canal inflow and total canal outflows. However, the canal's capacity limits how much excess flow can be routed all the way to Lake Cahuilla, and storage at this location has no ability to supply shortages upstream.
- Additional storage near the middle of the Coachella Canal length would be valuable to spread out large flow changes over several hours and reduce peak flows through the canal. Mid-system storage can also attenuate large flow changes that might otherwise exceed drawdown criteria or exceed capacity near the canal's downstream end.

The 2015 Feasibility Study used a computer model that was developed to study hydraulic operations and water storage for the Coachella Canal. Building upon that model, a subsequent 2019 investigation (*Draft Feasibility Study for Storage of Colorado River Water*, July 2019 by Dahl Consultants and Rogers Engineering Hydraulics Inc.) used similar methods to quantify storage volumes and how these volumes would provide either additional supply or space to contain excess water during events that create a flow mismatch in the canal system.

The Mid-Canal Storage Reservoir will create direct improvements to water management and canal operations resulting in significant cost efficiency. Converting the Coachella Canal to in-line regulatory storage at this location will include the following benefits:

- Elimination of Recurring Lining Repairs - Reconstructing canal pools between Check 11 and Check 14 will eliminate recurring maintenance activities for damage to the concrete lining that presently occurs in this section of the canal. The heavy clay soils in this area are largely responsible for ongoing lining damage and resulting maintenance activities cause restrictions to canal operations. The reservoir will eliminate the maintenance problems in this segment, which has been the area most prone to expensive repairs, exceeding four million dollars to date (2007-2021).
- It will also help prevent similar problems in the lined canal upstream and downstream from the reservoir by smoothing operations and decreasing water level fluctuations that can cause damage to the concrete lining.
- Normal Operational Benefits, including:
 - Water storage to help manage large, rapid delivery flow changes that affect Coachella Canal operations during times of high demand.
 - An increased amount of operational storage in the project to help compensate for the loss of in-channel storage caused by the CCLP.
 - The Mid-Canal Reservoir will be able to supply shortages in the middle and lower ends of the Coachella Canal delivery system and will help attenuate large flow changes that might otherwise exceed drawdown criteria or exceed capacity near the canal's downstream end.
- Reduction in Potential for CVWD Water Allocation Losses – At times when significant emergency cuts to CVWD orders are required (such as large rainfall events), valuable water supply can be lost to the CVWD system.
- Frost Events – Although difficult to quantify, CVWD's ability to draw from this new source of stored water could significantly reduce potential crop damage – commonly estimated as a very high potential loss.
- Allow CVWD to utilize a portion of its full water allocation currently lost as underrun.
- Provide increased water management resiliency in consideration of climatic change, and uncertain Colorado River water allocation in the future.

Due to the project's operational water supply efficiencies, and CVWD's use of imported canal water for groundwater replenishment, the Mid-Canal Storage Project is identified as an integral project in the 2022 Indio Subbasin Water Management Plan Update - Sustainable Groundwater Management Act (SGMA) Alternative Plan (Indio Subbasin Groundwater Sustainability Agencies, 2021) developed in compliance with the Sustainable Groundwater Management Act.

2.3 Environmental Setting

The linear Coachella Canal segment proposed to be modified to create an inline reservoir, is located east of the community of Wister, in Imperial County, situated in Township 9 South, Range 14 East, east ½ of Section 36; southwest ¼ of southwest ¼ of Section 31; east ½ of Section 6; southwest 1/4 of Section 5; northeast ¼ of Section 8; south ½ of Section 9; northwest ¼ of Section 15, on the U.S.

Geological Survey (USGS) 7.5' Wister quadrangle. The approximately 120-acre project site is located within Assessor's Parcel Numbers (APNs) 003-050-018, 003-050-025, 003-120-014, 003-120-022, 003-130-006, 003-200-047, and 003-210-001, and is bordered by Gasline Road to the east and Coachella Canal Road to the west. The project public land survey and coordinates are:

- Township and Range:
 - Siphon 11: Section 16, T 10 S, R 14 E, SBBM
 - Siphon 14: Section 36, T 9 S, R 13 E, SBBM
- Latitude and Longitude:
 - Siphon 11: 33° 18' 05.75" N, 115° 30' 30.03" W
 - Siphon 14: 33° 21' 04.60" N, 115° 34' 03.81" W

The canal segment proposed to be modified is located in Imperial County east of the Salton Sea and the community of Wister, California (see Figure 1: Location Map). Both parallel canals are constructed in the upland slope and convey water entirely by gravity flow, with electrical power needed only to operate the control gates at the checks. The existing concrete lined canal will be combined with the original earthen canal prism to create a wide section that will serve as an inline reservoir, with all work to be completed within the existing outer boundaries of the canal channels and fencing.

The western boundary of the U.S. Navy's Chocolate Mountains Aerial Gunnery Range lies to the east of the project site. West of site are desert lands extending to the eastern shore of the Salton Sea with a variety of land uses including irrigated agriculture, residences, and open land crossed by numerous unpaved roads. The site is located outside of Critical Habitat designated by the U.S. Fish and Wildlife Service (USFWS) and outside of other lands targeted for conservation under the Coachella Valley Multiple Species Habitat Conservation Plan (MSHCP) or other regional plans.

The immediate surrounding area is undeveloped and comprised of desert scrub and generally unvegetated desert washes. Agricultural lands are located approximately half a mile to the west of the study area, followed by the East Highline Canal, State Route 111, the Imperial National Wildlife Refuge, and the Salton Sea occurring further west. Lands to the north and east appear to remain undeveloped but are part of the Navy's Chocolate Mountains Aerial Gunnery Range. Interstate 10 and State Route 78 occur further to the north and east. The Imperial National Wildlife Refuge occurs approximately five miles west of the site. The nearest critical habitat unit designated by the USFWS is for desert tortoise (*Gopherus agassizii*), approximately 12.5 miles to the east of the site, on the eastern side of the Chocolate Mountains.

2.4 Existing Facilities and Conditions

2.4.1 Siphons and Check Structures

Between the aboveground sections of the canal, siphons allow canal water to flow beneath desert washes. The siphons are underground tunnels that flow by gravity to convey water from the upstream

tunnel mouth beneath the desert wash to emerge at the outlet in the downstream canal segment. The upstream inlet of the siphon is equipped with a gate, or “check structure” that can be raised or lowered to adjust the flow velocity as needed for high or low volume flows in the canal. The gates can be simple barrier boards, or mechanical barrier structures that can be operated either manually or with electrical power. The desert dry washes are open areas between the fenced, aboveground canal sections that have been subjected to disturbance from vehicle traffic and erosion.

2.4.2 Canal Segments

Heavy disturbance has occurred throughout the canal segments to be converted to the new storage reservoir, including grading and/or vegetation removal within the original earthen canal, and vehicle traffic on the existing roads on top of the berm between the two canals and across the underground portions of the canal. The original canal has an average bottom-width of ± 46 feet and top-width of ± 105 feet in the project segment. The parallel concrete lined canal has an average bottom width of ± 16 feet and top width of ± 58 feet. The intermediate berm has a top width of ± 20 feet and a bottom width of ± 115 feet.

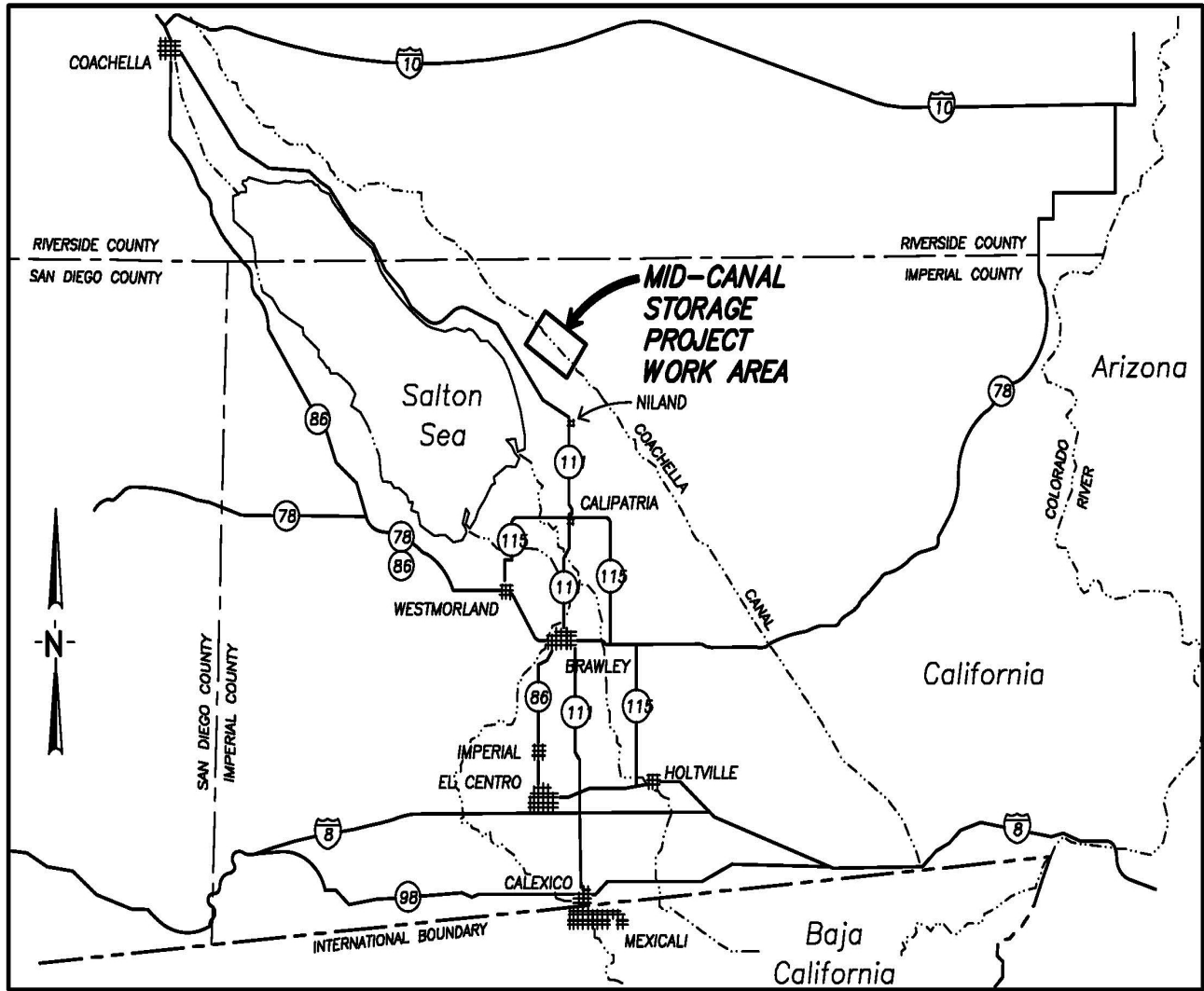
2.5 Project Description

The Mid-Canal Storage Project is proposed as a 4.9-mile long inline reservoir between Check 11 (Mile Post 54.6) and Check 14 (Mile Post 59.5); (see Figures 1 and 2). The reservoir will be formed by removing the existing berm between the existing lined canal with the original earthen canal section to form a single wide trapezoidal section. Average width of the reservoir will be approximately 220 feet. The materials removed will be used to construct more gradual canal side slopes (3:1) and raise the invert (0.8 feet higher). Existing check structures and siphons will remain in place and utilized to continue operating flows through the canal section. Check 11 will serve as the inlet control structure and Check 14 will be the outlet control structure. The estimated total footprint of the storage system to be developed is approximately 120 acres, with storage capacity of approximately 728 acre-feet.

This location was selected for several reasons:

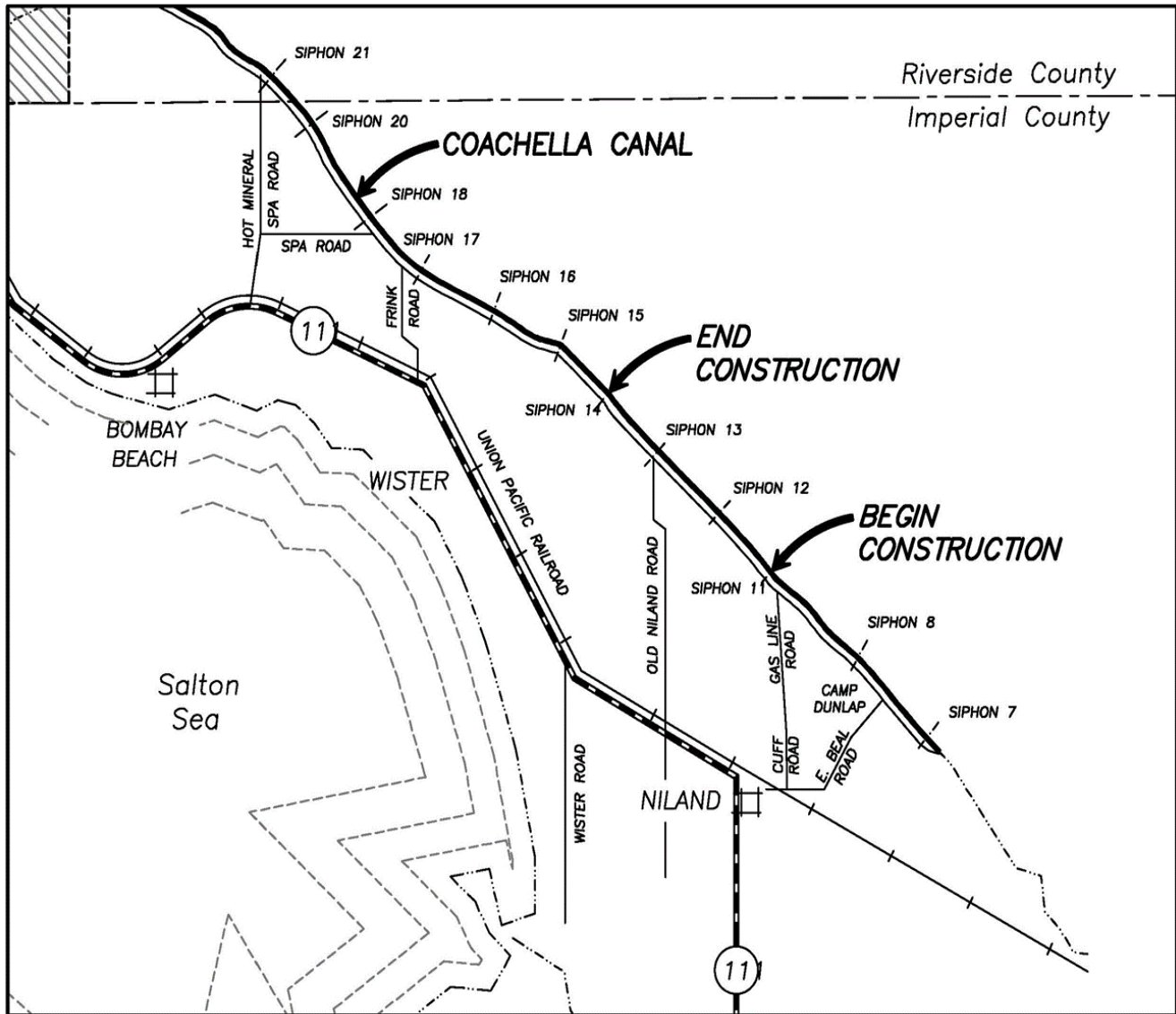
- It is situated upstream of CVWD’s canal delivery system and can provide stored water storage that can be accessed as needed throughout the system.
- Readily adaptable existing facilities:
 - Relatively new check structures already in place.
 - Large cross section geometry, combining the original canal and the new canal to provide ample storage volume.
- Flow regulation using gravity flow both into and out of the reservoir.
- Soils in this reach of the Coachella Canal contain impermeable clay, so the reservoir lining can be constructed with clay material excavated from the berm that now separates the two canals without a need for a concrete liner.

Figure 1 - Location Map



Location Map
Not to Scale

Figure 2 - Vicinity Map



Vicinity Map
Not to Scale

- Retirement of the concrete canal lining will reduce future potential lining replacement costs for this reach of the canal.

All work will be confined within the 120-acre footprint of the existing canal rights-of-way (ROW), including the fence line on the western perimeter and the existing O&M road just outside the fence line on the eastern side. Three other elements of the area of potential effects outside of the existing ROW include:

1. An existing staging area near the northern end of the project developed for the canal lining project, a portion of which is still in use by CVWD as an equipment storage yard;
2. The existing and regularly used county road that parallels the canal that will be used for transport from the staging area to the work site; and
3. Rock will be obtained from a local commercial source as material for approximately nine-inches of bank armoring on the west-facing eastern edge of the original canal as it is converted into the storage reservoir. All imported rock material will be transported to the project site via the existing county road and canal road.

2.5.2 Siphons

~~The newer siphons constructed as a part of the CCLP project (11, 12, & 13) will continue to be used to convey flow through the reservoir, with siphons 12 and 13 dividing the reservoir into three cells. Concrete sills (1-foot-high) will be constructed at the siphon inlet structures to accommodate the raising of the canal invert. Rock armoring will also be added to the siphon inlets and outlets. No changes will be made to the existing siphon tunnels or the overlying desert wash channels.~~

2.5.2 Siphon Transition Structures

The siphons constructed as a part of the CCLP project (11, 12, & 13) will continue to be used to convey flow through the reservoir cells, with siphons 12 and 13 dividing the reservoir into three cells. No changes will be made to the existing siphon tunnels or the overlying desert wash channels. Rock armoring will be added at the siphon inlets. The siphon transition structure walls will be raised 1 to 3 feet to create freeboard above maximum capacity pool levels within the reservoir with no effects on the underlying tunnels. All work to complete these siphon inlet and outlet modifications will occur entirely within the existing parallel canal boundaries. No excavation is required that could affect the siphon tunnels, or the existing desert wash channels.

2.5.3 Reservoir Clay Lining

The new reservoir will be lined using the existing lake deposit clays that now form the berm between the two canal channels. Analysis of the available clay material was conducted by the project engineering team and reported in a July 2021 Technical memorandum. Their analysis provided the following details regarding seepage losses in concrete lined segments, and those expected with the new clay liner as follows:

Reclamation has established an acceptable loss rate for concrete lining of 0.07ft³/ft²/day, (USBR, Lining for Irrigation Canals, 1963). The CCLP concrete canal lining has performed exceptionally well for the portion of the project downstream of Siphon 16 and may have a loss rate less than 0.07ft³/ft²/day. However, the portion of the CCLP between Siphon 7 and Siphon 14 has experienced significant cracking since construction and its loss rate in some areas is likely to be well above 0.07ft³/ft²/day.

The seepage control assessment concludes that:

- *Project design and use of the clay liner in this canal segment and for the proposed in-line storage reservoir will control seepage losses consistent with the previous analyses presented in the 2001 Final EIS/EIR Geohydrology Appendix.*
- *Laboratory testing of the lake deposit clays shows extremely low coefficients of permeability (5x10⁻⁷ cm/sec). Thus, there is little to no seepage in areas where the canal is cut into the lake deposit clays.*
- *The clay material existing within the proposed project footprint is suitable for and can be used to create an effective and economical liner to prevent seepage comparable to and even better than the concrete lined section.*

(Source: Dahl Consultants, Draft Technical Memorandum No. 1, Coachella Valley Water District (CVWD) Mid- Canal Storage Project Seepage Control Methodology for Conversions of Pools 11, 12, and 13 to an In-line Canal Reservoir, July 7, 2021)

A supporting geotechnical investigation was prepared by Landmark Geo-Engineers and Geologists to conduct laboratory testing of soils within the middle embankment and evaluation of engineering properties to develop recommendations for construction of the clay liner. Their analysis concluded that:

The middle embankment was found to have uniform soil conditions at each location where slope excavations occurred. Soil changes were found to occur along the length (reach) of the embankment from Siphon 11 to Siphon 14. The soil materials (sands, gravelly sands, and clayey soils) will need to be visually segregated during construction of the reservoir.

The in-line reservoir is anticipated to be lined with a compacted clay liner consisting of the middle embankment and east embankment soils to retard seepage. The native clay soils at the site are expected to have low permeability and are considered suitable for use as a clay liner. Following mixing and recompaction to 90% (ASTM D1557), the clays are anticipated to have a permeability of less than 1x10⁻⁵ cm/sec.

The liner material should be free from deleterious material such as organic matter, construction debris, rocks, or other debris. The clay liner material should be pulverized/diced to less than ¾ inch maximum clod size uniformly moisture conditioned

to optimum plus 4 to 8% and placed in 6 inch maximum lifts to a minimum of 90% ASTM D1557 maximum density.

Source: Landmark Geo-Engineers and Geologists, *Geotechnical Review, In-Line Water Storage Reservoir – Phase 1 Evaluation, Coachella Canal – Siphon 11 to Siphon 14, Niland, California, LCI Report No. LE19012*, March 6, 2019.

The resulting design depth of the clay liner is a minimum of 2.8 feet, selected as a very conservative depth which is intended to minimize seepage losses to be no greater than seepage losses with the three-inch concrete lining (0.07ft³/ft²/day). (The minimum calculated depth of the clay liner to achieve the required seepage control was 1.08 feet. (Source: Dahl Consultants.). The completed reservoir will have a bottom width of 90 feet and will be approximately 230 feet wide from the western fence line to the eastern fence line, with a water surface approximately 150 feet wide at maximum water level (see Figure 6).

2.5.4 Animal Drinkers

Six large mammal “drinkers” were constructed in the bottom of the original canal as part of the CCLP. These drinkers impacted by the project will be replaced with earthen ramps in the same locations as the existing drinkers extending to the reservoir water surface, with fencing to prevent animals from getting into the flowing reservoir. Three large mammal “drinkers” on the west side of the canal will not be modified.

2.5.5 Electrical Service

~~A new electrical line will be extended to Check 14 to power operations of the gate, and for operation of the Supervisory Control and Data Acquisition (SCADA) system allowing remote control of the system. The electrical line will replace an existing solar panel battery system that has been subjected to regular vandalism and theft. Final design details have not been completed but based upon coordination between CVWD and IID engineering staff, the 12kV line will be pole mounted, extending approximately 3.10 miles from an existing IID switchyard west of the canal along English Road, an existing county road right-of-way northeast to the canal road ROW and then north to Check 14. The line will be routed entirely within the existing county and canal road ROW. The line will include approximately 82 wooden poles 38 feet tall with spacing of 200 feet.~~

2.5.5 Electrical Service

A new electrical line will be extended to Check 14 to power operations of the gate, and for operation of the Supervisory Control and Data Acquisition (SCADA) system allowing remote control of the system. The electrical line will replace an existing solar panel battery system that has been subjected to regular vandalism and theft. Final design details have not been completed but based upon coordination between CVWD and IID engineering staff, the 12kV line will be pole mounted, extending approximately 3.5 miles from an existing IID switchyard west of the canal along English Road, an existing county road

right-of-way northeast to the canal road ROW and then north to Check 14. The line will be routed entirely within the existing county and canal road ROW. The line will include approximately 82 wooden poles 40- and 45-feet tall with spacing of 200-feet.

IID's initial plan to service the project would include the following circuit details:

- A Distribution Circuit Study on the feasibility to accommodate CVWD's project electrical load via a 200amp 120/240v single-phase electrical panel that will serve a water gate and a SCADA building from the existing P-63 Circuit of Niland Substation. Any circuit upgrades deemed necessary to serve the project will be the financial responsibility of the CVWD. Line capacitors may be required as part of the plan to be determined by IID's Distribution Planning Unit.
- A tentative plan of service would be to extend a single-phase overhead primary line approximately 3.5 miles from existing IID pole #67891-40' along English Road rights-of-way, which is an Imperial County road, up to the intersection of the Coachella Canal Road rights of way utilizing 40 feet and 45 feet distribution-rated wood poles and associated guying anchors. The new single-phase primary line extension will cross under IID's existing "KN&KS" 230kV and "N" 161kV transmission lines and then proceed in a north westerly direction along the north side of the Coachella Canal Road right-of-way, to the Coachella Canal Siphon 14 location. IID would dead end the single-phase primary line, hang a single-phase pole mounted transformer and run an overhead secondary service to CVWD's 200 amp 120/240V customer meter pole.

A photo of the intersection with IID transmission lines and schematic diagrams showing overhead single-phase primary pole standard details, that include guying, head guy pole guying and customer meter pole detail are included as an attachment to the IID comment letter in Appendix G of this Final IS/MND.

2.6 Construction

It is anticipated that heavy construction equipment that would be used for the proposed project may include the following: graders, scrapers, bulldozer, backhoe, tractor, loader, concrete/industrial saw, forklift, crane, paver, roller, cement and mortar mixers, water trucks, and dump trucks.

2.6.1 Site preparation

During construction temporary wildlife water troughs will be installed outside of the construction area in the same approximate location of the existing drinkers, to be filled daily by the on-site water truck.

2.6.2 Earthwork

Embankments will be raised with onsite materials, with earthwork to be balanced on site because the canal is cut into the upland slope and there will be an abundance of material from the removal of the center berm. The only material to be imported is the rock needed for erosion control armoring at the siphon inlets and outlets, and along the east bank of the reservoir that could be subject to wind-blown

waves resulting from predominately westerly winds. Raising the water surface three feet above the present canal design water elevation at Check 14 creates about 250 acre-feet of additional storage.

The concrete panels that form the existing liner along the east bank will be tipped over into the bottom of the canal, with the bottom and west bank portion left in place to be covered by the new clay liner. Following approximately three feet of over-excavation of some portions of this segment to remove alluvium, the existing clay throughout this canal segment, including clay in the central berm that separates the two canal prisms, will be spread across the bottom of the new reservoir channel.

2.7 Standard Construction Practices

CVWD conducts the following standard practices during construction and would complete these as part of the Mid-Canal Project:

- Drainage / Erosion Control – During construction, existing storm water facilities including catch basins, manholes, and ditches would be protected using erosion control measures. Design standards outlined in the Riverside County Whitewater River Region Stormwater Quality Best Management Practice Design Handbook for Low Impact Development (Riverside County Flood Control and Watershed Conservation District 2014) would be implemented by the construction contractor as applicable to the project site's stormwater drainage features. In addition, the project contractor would be required to obtain a Construction General Permit pursuant to the National Pollutant Discharge Elimination System (NPDES), which would require development of a construction Storm Water Pollution Prevention Plan (SWPPP) and implementation of best management practices (BMPs) to prevent polluted runoff from leaving the construction site.
- Groundwater Dewatering – The proposed project may involve excavation as deep as three feet below ground surface. Trenches dug to 14-foot depth to develop soil logs for the geotechnical investigation did not encounter any groundwater, (Landmark, 2019). However, if encountered during excavation, groundwater would be controlled using standard methods including stone sumps wrapped in filter fabric and dewatering basins or baffled tanks if required.
- Air Quality / Dust Suppression – The construction contractor would be required to comply with South Coast Air Quality Management District (SCAQMD) rules 403 and 403.1 to control dust during construction specific to the Coachella Valley. The contractor is required to have an approved Fugitive Dust Control Plan prior to grading or excavation. The contractor is required to comply with the California Air Resources Board's In-Use Off-Road Diesel-Fueled Fleets Regulations, which would limit vehicle idling time to five minutes, restrict adding vehicles to construction fleets that have lower than Tier 3 engines, and establish a schedule for retiring older, less fuel-efficient engines from the construction fleet.
- Geotechnical Standards – A design-phase geotechnical report has been prepared for the proposed project. The recommendations from the geotechnical report will be incorporated into the final design and construction of the proposed project.

- Unanticipated Discovery of Archaeological Resources – If cultural resources are encountered during ground-disturbing activities, work in the immediate area must halt and an archaeologist meeting the Secretary of the Interior’s Professional Qualifications Standards for archaeology (National Park Service 1983) would be contacted immediately to evaluate the find. If the discovery proves to be eligible for the National Register of Historic Places and/or California Register of Historical Resources, additional work such as data recovery excavation and Native American consultation may be warranted.
- Unanticipated Discovery of Human Remains – If human remains are found, regulations outlined in the State of California Health and Safety Code Section 7050.5 state no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to PRC Section 5097.98. In the event of an unanticipated discovery of human remains, the County Coroner must be notified immediately. If the human remains are determined to be prehistoric, the Coroner will notify the Native American Heritage Commission, which will determine and notify a most likely descendant. The most likely descendant shall complete the inspection of the site within 48 hours of being granted access and provide recommendations as to the treatment of the remains to the landowner.
- Construction Noise and Vibration – CVWD would implement the following standard construction noise and vibration reduction measures to minimize the impacts of construction noise and vibration:
 - All equipment and trucks used by the Construction Contractor for project construction shall use the best available noise control techniques (including mufflers, use of intake silencers, ducts, engine enclosures and acoustically attenuating shields or shrouds) and be maintained in good operating condition to minimize construction noise impacts. All internal combustion engine-drive equipment shall be fitted with intake and exhaust mufflers which are in good condition.
 - During construction, the Construction Contractor shall prohibit unnecessary idling of internal combustion engines. In practice, this would mean turning off equipment if it would not be used for five or more minutes.

2.8 Operations and Maintenance

The Mid-Canal Storage Reservoir will be integrated into CVWD’s existing canal control operating system. Reservoir water levels will be controlled at Check 14, much the same as controlling a checked water surface in the canal. A minimum water depth must be maintained at this point to pass flow into the canal downstream. This minimum allowable water depth depends on canal flow rate. Most of the time, water level in this canal segment will be the normal depth for the present flow rate. At low flows, the canal will operate at a relatively low water level. Therefore, the water level upstream of Check 14 can be correspondingly low.

At high flows, water depth in this canal segment will be higher and reservoir water level must also be higher to push water through Check 14. This restriction will reduce the amount of available regulatory storage in the reservoir during high flow periods. A high checked water level at Check 18 can also affect the depth during high-flow conditions, but typical operations at Check 18 will not significantly affect the minimum reservoir depth.

Table 1 shows the minimum allowable water depth required in the reservoir at varying flow rates and the resulting amount of available reservoir storage above the minimum reservoir depth. For most normal operating conditions, the minimum reservoir level will be between three and six feet deep, and the amount of usable storage will be from 500 to 700 acre-feet. The reservoir will provide a maximum additional volume of 728 acre-feet available to store excess water or to supply water into the canal when needed. A given volume in the reservoir equates to an inflow or outflow rate for a particular length of time.

Table 2, Table 3, and Table 4 show how much time it takes to fill or drain volumes from the reservoir, and therefore how the reservoir level will change over time. Differential volume is shown for one-foot increments of depth, for the useful operating range in the reservoir. Reservoir level will rise at a rate that is proportional to the net rate of *inflow* into the reservoir or will fall at a rate that is proportional to the net *outflow* from the reservoir.

Table 1 - Minimum Reservoir Depth and Usable Storage Volumes

Canal Flow Rate (cfs)	Minimum Reservoir Depth (feet)	Usable Storage Volume (acre-feet)
25	0.5	728
50	0.8	728
100	1.2	728
200	1.8	718
400	2.8	660
600	4.4	570
800	5.8	490
1000	7.1	395
1200	8.3	305

Table 2 - Time (in hours) to increase reservoir level vs. net inflow rate

Reservoir Depth (feet)	Differential Volume (acre-feet)	Net flow into reservoir (cfs):					
		50	100	200	400	600	800
		Time (in hours) to increase reservoir level by 1 foot					
12	88	21.3	10.6	5.3	2.7	1.8	1.3
11	84	20.3	10.2	5.1	2.5	1.7	1.3
10	81	19.6	9.8	4.9	2.5	1.6	1.2
9	78	18.9	9.4	4.7	2.4	1.6	1.2
8	74	17.9	9.0	4.5	2.2	1.5	1.1
7	71	17.2	8.6	4.3	2.1	1.4	1.1
6	68	16.5	8.2	4.1	2.1	1.4	1.0
5	64	15.5	7.7	3.9	1.9	1.3	
4	61	14.8	7.4	3.7	1.8	1.2	
Totals:	669 AF	132 hr	88 hr	44 hr	21hr	13 hr	8 hr
Average time for a 1-foot change in level (hrs)		19 hr	9 hr	5 hr	2.4 hr	1.6 hr	1.2 hr

Table 3 - Time (in hours) to decrease reservoir level vs. net outflow rate

Reservoir Depth (feet)	Differential Volume (acre-feet)	Net flow into reservoir (cfs):					
		50	100	200	400	600	800
		Time (in hours) to increase reservoir level by 1 foot					
12	88	21.3	10.6	5.3	2.7	1.8	1.3
11	84	20.3	10.2	5.1	2.5	1.7	1.3
10	81	19.6	9.8	4.9	2.5	1.6	1.2
9	78	18.9	9.4	4.7	2.4	1.6	1.2
8	74	17.9	9.0	4.5	2.2	1.5	1.1
7	71	17.2	8.6	4.3	2.1	1.4	1.1
6	68	16.5	8.2	4.1	2.1	1.4	1.0
5	64	15.5	7.7	3.9	1.9	1.3	
4	61	14.8	7.4	3.7	1.8		
Totals:	669 AF	132 hr	88 hr	44 hr	21hr	12 hr	8 hr
Average time for a 1-foot change in level (hrs)		19 hr	9 hr	5 hr	2.4 hr	1.6 hr	1.2 hr

Table 4 - Summary of storage use vs. time

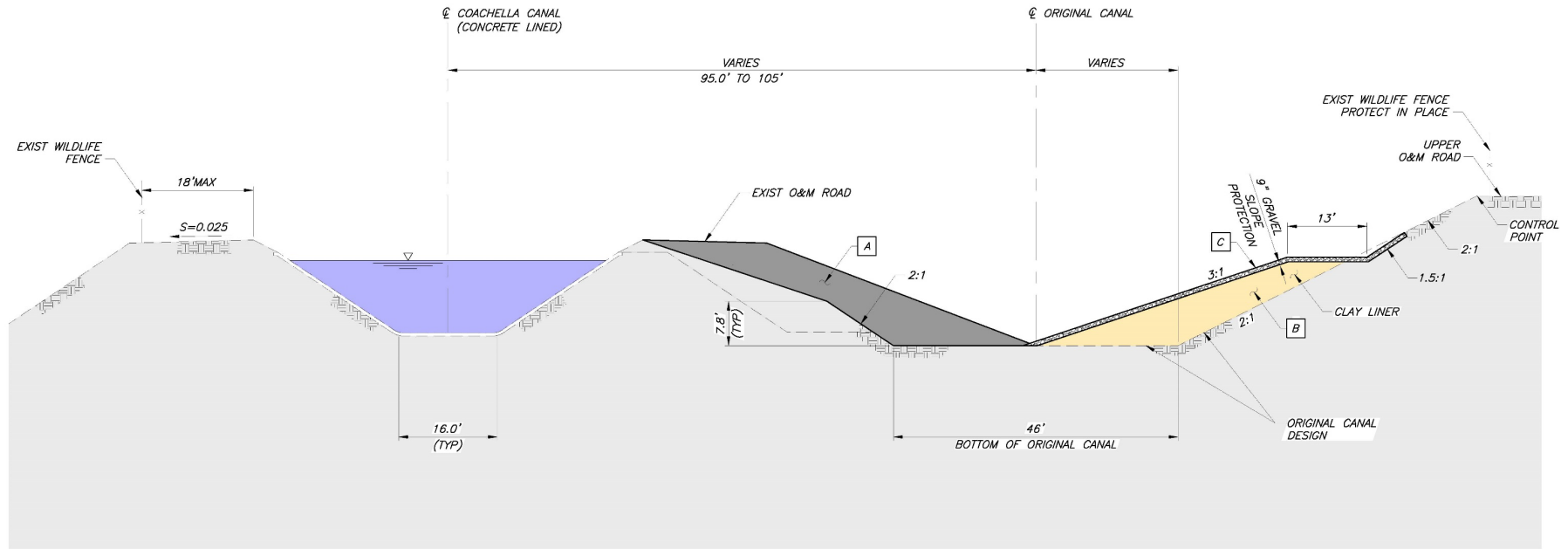
When the flow through Siphon 14 is:		400 cfs (low flow)	1000 cfs (high flow)
Usable storage volume is:		660 acre-feet	395 acre-feet
Differential flow (filling or draining)	Average time to change level by 1 foot	Time to drain/fill entire usable volume of 660 acre-feet	Time to drain/fill entire usable volume of 395 acre-feet
50 cfs	18 hr	160 hr	96 hr
100 cfs	9 hr	80 hr	48 hr
200 cfs	5 hr	40 hr	24 hr
400 cfs	2.3 hr	20 hr	12 hr
600 cfs	1.5 hr	13 hr	8 hr
800 cfs	1 hr	10 hr	6 hr

Long term operation of the reservoir will be essentially the same as current operations, with routine maintenance of gates and fencing, and periodic bank grooming following major storms or wind events. For the reservoir, a dragline may be periodically used to remove sediment. The need for sediment removal is estimated to occur about every ten years.

Construction Sequencing

Construction is expected to take a total of 6 to 8 months. Figures 3 through 6 show the sequence for construction. Sheet pile barriers will be installed to complete the final earthwork on the reservoir bottom so that the canal will continue to be used to convey normal deliveries. Work will be staged so that all earthwork occurs in the dewatered canal segments, and never within the flowing water of the canal. Equipment to be used for earthwork to create the storage reservoir will include standard heavy equipment for earth moving construction projects such as: pickup trucks, water trucks, large excavators, backhoes, dump trucks, front-end loaders, vibratory compactors, bulldozers, a 25 kVA portable generator(s), and a dewatering pump system, and possibly others to be determined in final engineering design and construction planning. All equipment will access the construction site via the existing county and canal maintenance roads, and all work will be done within the existing fence lines of the two canals. At present, it is anticipated that construction could begin in late summer 2023 and be completed by late winter or early Spring 2024. The construction sequence includes:

Figure 3 - Mid-Canal Storage Project Profile and Sequence – Step 1

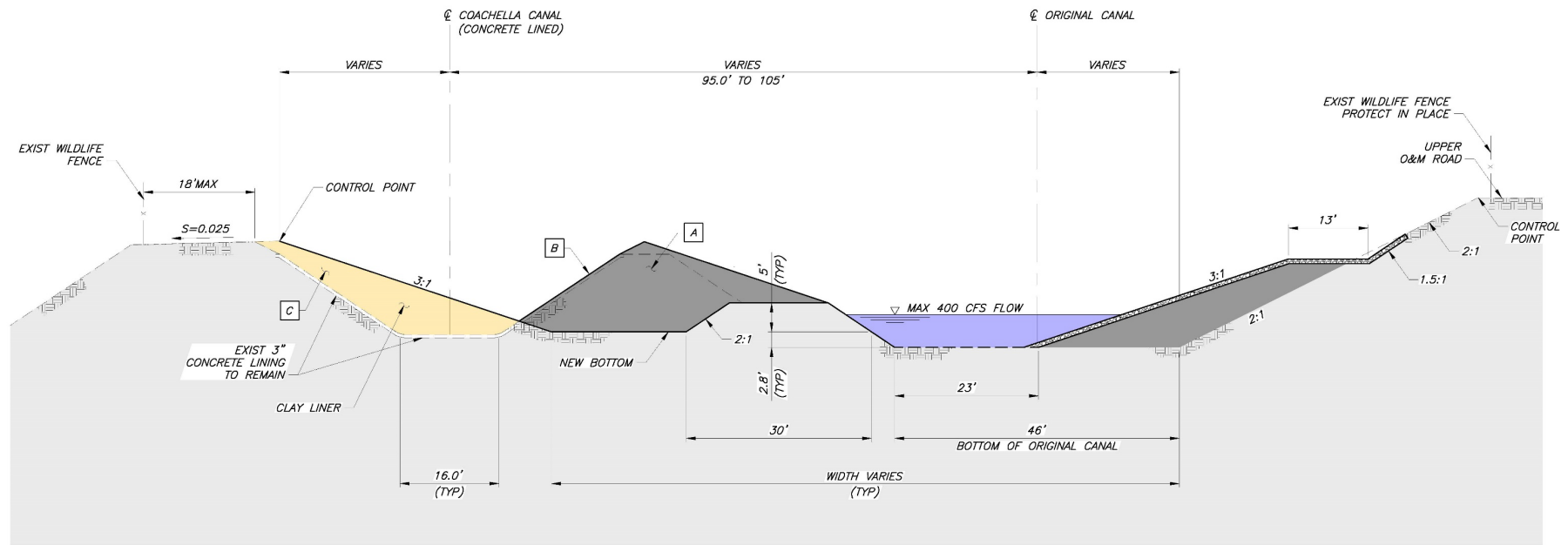


STEP 1

STEP 1:

- A. REMOVE PORTION OF EXISTING EMBANKMENT.
- B. CONSTRUCT COMPACTED EMBANKMENT ALONG OLD CANAL (RIGHT) USING THE MATERIAL FROM THE EXISTING EMBANKMENT.
- C. FURNISH AND PLACE 9-INCH-THICK ROCK PROTECTION ALONG EASTERLY SLOPE.
- D. WORK SHALL BE COMPLETED FOR ALL CELLS WITHOUT DISRUPTING SERVICE TO THE EXISTING CANAL.

Figure 4 - Mid-Canal Storage Project Profile and Sequence – Step 2

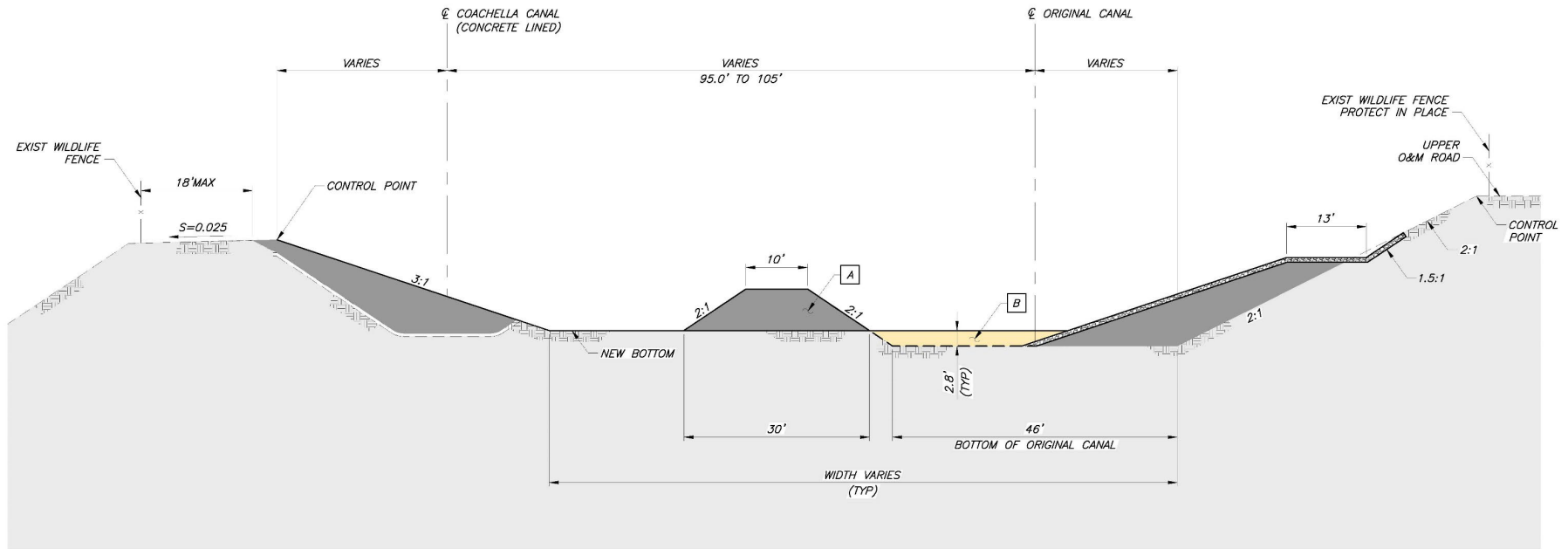


STEP 2

- A. COORDINATE TEMPORARY SHUTDOWN WITH CVWD TO DIVERT FLOW INTO THE OLD CANAL.
- B. CUT AND REMOVE EXISTING LINING ON CANAL RIGHT TO INVERT.
- C. REMOVE PORTION OF EXISTING EMBANKMENT TO CONSTRUCT COMPACTED EMBANKMENT ALONG LINED CANAL (LEFT) USING THE MATERIAL FROM THE EXISTING EMBANKMENT.
- D. WORK SHALL BE COMPLETED FOR ALL CELLS WITHOUT DISRUPTING SERVICE TO THE OLD CANAL.

STEP 2

Figure 5 - Mid-Canal Storage Project Profile and Sequence – Step 3

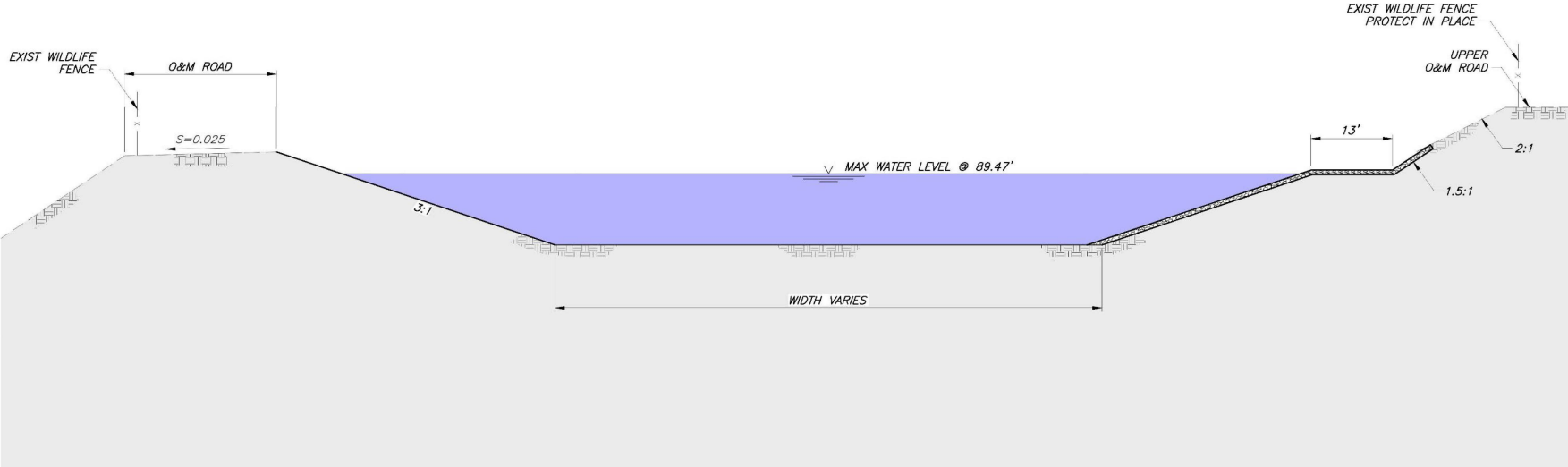


STEP 3

STEP 3

- A. COORDINATE TEMPORARY SHUTDOWN WITH CVWD TO DEWATER THE OLD CANAL.
- B. USE REMAINING EMBANKMENT MATERIAL TO FILL IN CANAL BOTTOM.

Figure 6 - Typical Section with Finished Storage Reservoir



COMPLETED SECTION

Step 1 – Earthwork in the original earthen canal (completed during summer/fall)

- Clear, scarify, and compact subgrade from Siphon 11 to 14
- Remove portion of existing left embankment
- Construct compacted right embankment using removed material from left embankment
- Furnish and place 9-inch-thick rock protection along slope on the right embankment
- Work completed for all reaches without disrupting service in existing canal

Step 2a – Diversions (completed during winter low-flow period)

- Coordinate temporary flow reduction with CVWD
- Construct temporary plugs in the canal to isolate Siphons 11 (downstream only), 12, 13, and 14 (upstream only)
- Complete structural modifications at Siphons 12 and 13 and Check 14
- Construct temporary transitions to divert flow into the original canal

Step 2b – Earthwork in lined canal (completed during winter low-flow period)

- Dewater existing lined canal pools
- Remove portion of canal-right concrete lining to the canal invert
- Remove portion of existing canal right embankment
- Construct compacted left embankment using removed material from right embankment

Step 3 – Complete final reservoir section (completed during late winter low-flow period)

- Install sheet pile barrier to maintain canal water deliveries
- Dewater original canal
- Use remaining embankment between original earthen and lined canals to construct finished reservoir bottom
- Construct final transitions
- Resume normal water deliveries in the Coachella Canal, including the new Mid-Canal Storage Reservoir

2.9 Additional Approvals Required by Other Public Agencies

In addition to CVWD, agencies that will rely upon this IS/MND to satisfy requirements of CEQA are listed in **Table 5** below.

Table 5 - State and Local Agencies Involved in Project Approval

Role	State & Local
Lead Agencies	Coachella Valley Water District (CEQA Lead Agency)
Responsible Agencies	San Diego County Water Authority (CCLP Partner)
	San Luis Rey Indian Water Authority (CCLP Partner)
	Regional Water Quality Control Board (General Construction Permit SWPPP and WDID Number)
	Imperial Valley Air Pollution Control District (Construction Permit)
	Imperial Irrigation District (Electrical power connection for Check 14)
Trustee Agencies (consultation)	State Historic Preservation Office (Cultural Resources Consultation - NHPA §106)
	California Department of Fish and Wildlife (CESA consultation)

The Bureau of Reclamation is the primary federal agency involved in project approval is, and as explained below, they will prepare an environmental assessment to comply with federal law and will not rely upon this CEQA document.

2.10 National Environmental Policy Act

The Canal is owned by the Bureau of Reclamation (Reclamation) with operations and maintenance (O&M) being managed by CVWD. CVWD has proposed to enter into an agreement with Reclamation to construct the Mid-Canal Storage Project. It will be CVWD's responsibility to adhere to guidance detailed in Reclamation's Environmental Assessment to support a Finding of No Significant Impact (EA/FONSI) concerning implementation, and to provide funding, labor and materials to implement and maintain the proposed water storage and conveyance system. Reclamation will prepare an EA/FONSI for the project to satisfy requirements of NEPA and will not rely on this CEQA document in its decision making. Preparation of the two documents has been coordinated by the agencies to ensure consistency in findings and mitigation requirements.

2.11 Tribal Consultation

CVWD's CEQA process includes a requirement pursuant to AB 52 to conduct consultation with Native American Tribes that have requested to be notified by CVWD of proposals regarding the potential of proposed Projects to affect culturally sensitive tribal resources. CVWD maintains a list of all the Native American Tribes and Tribal contacts that have requested to be notified of all proposed projects within CVWD's service area and that have requested consultation pursuant to Public Resources Code section 21080.3.1. CVWD sent letters to each of these parties as described in the discussion of Tribal Resources below. Tribal notification letters were mailed on March 16, 2022, with a request that Tribes respond within 30 days if they want to engage in formal consultation. One response was received from the Aqua Caliente Band of Cahuilla Mission Indians requesting formal consultation with CVWD. No other responses were received.

In response to their request, CVWD provided a copy of the Draft IS/MND, including the Cultural and Historic Properties technical report that also considered Tribal cultural resources presented in Appendix 3. The Tribe responded in a letter on January 25, 2023 to the CVWD that they had reviewed the documents and concluded that their concerns have been addressed, proposed mitigation measures were adequate to ensure the protection of tribal cultural resources, and that the Tribe's letter concludes AB 52 consultation efforts for this project.

CHAPTER 3 - ENVIRONMENTAL IMPACT ASSESSMENT

1. **Project title:** Mid-Canal Storage Project
2. **Lead agency name and address:** Coachella Valley Water District
75515 Hovley Lane East
Palm Desert, CA 92211
3. **Contact person and phone number:** William Patterson
Environmental Supervisor
75515 Hovley Lane East
Palm Desert, CA 92211
(760) 398-2651 x2545
4. **Project location:** The linear Coachella Canal segment proposed to be modified to create an inline reservoir, is located east of the community of Wister, in Imperial County, situated in Township 9 South, Range 14 East, east ½ of Section 36; southwest ¼ of southwest ¼ of Section 31; east ½ of Section 6; southwest 1/4 of Section 5; northeast ¼ of Section 8; south ½ of Section 9; northwest ¼ of Section 15, on the U.S. Geological Survey (USGS) 7.5' Wister quadrangle. The approximately 120-acre project site is located within Assessor's Parcel Numbers (APNs) 003-050-018, 003-050-025, 003-120-014, 003-120-022, 003-130-006, 003-200-047, and 003-210-001, and is bordered by Gasline Road to the east and Coachella Canal Road to the west.
5. **Project sponsor's name and address:**

Coachella Valley Water District	San Diego County Water Authority
5515 Hovley Lane East	4677 Overland Avenue
Palm Desert, CA 92211	San Diego, CA 92123
6. **General plan designations:** Not applicable to federal right-of-way
7. **Zoning:** Not Applicable to federal right-of-way
8. **Description of project:** The Mid-Canal Storage Project is proposed as a 4.9-mile long inline reservoir on the Coachella Canal to be formed by removing the existing embankment between the existing lined canal and the original earthen canal section to form a single wide trapezoidal section with maximum storage capacity of approximately 728 acre-feet. See Chapter 2 above for project description details.
9. **Surrounding land uses and setting:** The western boundary of the U.S. Navy's Chocolate Mountains Aerial Gunnery Range lies to the east of the project site. West of site are desert lands extending to the eastern shore of the Salton Sea with a variety of land uses including irrigated agriculture, residences, and open land crossed by numerous unpaved roads. The site is located outside of Critical

Habitat designated by the U.S. Fish and Wildlife Service (USFWS) and outside of other lands targeted for conservation under the Coachella Valley Multiple Species Habitat Conservation Plan (MSHCP) or other regional plans.

The immediate surrounding area is undeveloped and comprised of desert scrub and generally unvegetated desert washes. Agricultural lands are located approximately half a mile to the west of the study area, followed by the East Highline Canal, State Route 111, the Imperial National Wildlife Refuge, and the Salton Sea occurring further west. Lands to the north and east appear to remain undeveloped but are part of the Navy's Chocolate Mountains Aerial Gunnery Range. Interstate 10 and State Route 78 occur further to the north and east. The Imperial National Wildlife Refuge occurs approximately five miles west of the site. The nearest critical habitat unit designated by the USFWS is for desert tortoise (*Gopherus agassizii*), approximately 12.5 miles to the east of the site, on the eastern side of the Chocolate Mountains.

10. Other public agencies whose approval is required:

See Table 5 in Section 2.9 and section 2.10 in the Project Description chapter above.

11. Have California Native American tribes traditionally and culturally affiliated with the Project area requested consultation pursuant to Public Resources Code section 2180.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?

On April 20, 2022, CVWD mailed Notice of Opportunity to Consult for formal Assembly Bill (AB) 52 consultation letters to the local Native American tribal governments that have previously requested to consult under AB 52. To date CVWD environmental staff have received one (1) written formal request for consultation from the Agua Caliente Band of Cahuilla Indians (ACBCI) Tribe. CVWD has responded to this request and has formally initiated AB 52 consultation for this IS/MND for determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, proposed mitigation measures, and related issues.

As noted in Section 2.11 above, to conclude the consultation process the Tribe responded in a letter to the CVWD that their concerns have been addressed, proposed mitigation measures were adequate to ensure the protection of tribal cultural resources, and AB 52 consultation efforts for this project were complete.

3.1 Environmental Factors Potentially Affected

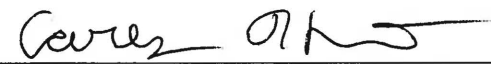
The environmental factor(s) checked below will be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated in the checklist on the following pages.

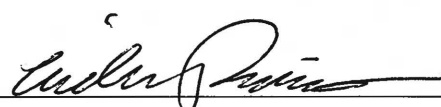
- | | | |
|---|---|---|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture and Forestry Resources | <input checked="" type="checkbox"/> Air Quality |
| <input checked="" type="checkbox"/> Biological Resources | <input checked="" type="checkbox"/> Cultural Resources | <input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

DETERMINATION: (To be completed by Lead Agency)


On the basis of this initial study:

- The proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- Although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- The project MAY have a significant effect on the environment, and an environmental impact report is required.
- The project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- Although the project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the project, no further environmental documentation is required.

Reviewed by: X  02.14.2023
Carlos Huerta
Environmental Specialist
Coachella Valley Water District
Date

Reviewed by: X  02.14.2023
William Patterson
Environmental Supervisor
Coachella Valley Water District
Date

Submitted by: X  2/14/2023
Steve Bigley
Director of Environmental Services
Coachella Valley Water District
Date

Prepared by: X  February 14, 2023
Jeffrey G. Harvey, Ph.D.
Principal & Senior Scientist
Harvey Consulting Group (with Dahl Consultants, Inc.)
Date

Issues	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact	
I. Aesthetics					
Except as provided in Public Resources Code Section 21099, would the project:					
a)	Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b)	Substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c)	In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings. (Public views are those that are experienced from a publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d)	Create a new source of substantial light or glare, which will adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

The assessment of potential aesthetic effects of the project was performed based upon a complete site reconnaissance and understanding of the proposed project including short-term effects of construction activities and potential long-term effects of canal and reservoir operations.

a) Less Than Significant. The site is not located along a designated scenic corridor but is within a scenic vista with views of the expansive Imperial Valley and Salton Sea. Joining the two existing canal prisms into a single prism to create a storage reservoir will have no effect on any scenic resources and will not be visible from any scenic location except to those traveling on the adjacent unpaved roads. Therefore, it is concluded that the Project would have less than significant impact on a scenic vista, and no mitigation is recommended.

b) No Impact. The project site is located entirely within the fence lines of the two existing canals and contains no scenic resources such as large trees, unique vistas, rock outcroppings, or historic buildings.

c) No Impact. The canal segment to be modified to create the storage reservoir is in a non-urbanized area. There are no publicly accessible vantage points that would be degraded, and the existing visual character will not be significantly changed.

d) No Impact. Construction of the proposed project may create a temporary source of light from security lighting around construction equipment parked on site, but there are no neighboring residences that could be affected. The proposed reservoir project does not include any lighting for long-term operations and would not create a source of light or glare that would adversely affect day or night-time views in the Project area.

Therefore, it is concluded that no adverse impacts to scenic resources would occur with Project implementation.

Mitigation Measures: None required or recommended.

Issues	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact	
<p>II. Agriculture and Forestry Resources</p> <p>In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:</p>					
a)	Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b)	Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c)	Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d)	Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e)	Involve other changes in the existing environment which, due to their location or nature, could result in the conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

The assessment of potential effects on agricultural and forestry resources of the project was performed based upon a complete site reconnaissance and understanding of the proposed project including short-term effects of construction activities and potential long-term effects of canal and reservoir operations.

a) No Impact. Construction and long-term operations of the canal system and storage reservoir have no potential to impact any agricultural uses in the surrounding region or Coachella Valley. No part of

the storage reservoir encroaches on any lands classified as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance.

b) No Impact. The existing canal and proposed storage reservoir support a wide range of agricultural uses in the Coachella Valley and will not conflict with any zoning classification of lands subject to Williamson Act contracts.

c) No Impact. The project site and surrounding areas do not include any forest or timber lands, and the proposed project has potential to impact forest land resources.

d) and e) No Impact. As described above, the proposed project and site has no potential to affect any forest lands, directly or indirectly.

Therefore, no significant adverse impacts are identified relative to agriculture and forestry resources.

Mitigation Measures: None required or recommended.

Issues	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact	
III. Air Quality Where available, the significance criteria established by the applicable air quality management district or air pollution control district might be relied upon to make the following determinations. Would the project:					
a)	Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b)	Result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable federal or state ambient air quality standard?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c)	Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d)	Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

The assessment of potential air quality effects of the project was performed based upon a complete site reconnaissance and understanding of the proposed project including short-term effects of construction activities and potential long-term effects of canal and reservoir operations. The RCH Group conducted air quality modeling using the California Emissions Estimator Model (CalEEMod) program recommended by the Imperial County Air Pollution Control District (ICAPCD). The results of the modeling are presented in Appendix E and summarized below and confirm that the District’s air quality emissions thresholds will not be exceeded. The project’s potential emissions are related only to construction for which alternative equipment and methods are not available. Long-term operations are by gravity flow and produce negligible emissions related to electricity used to operate the gate at Siphon 14 to control water levels in the upstream reservoir. Mitigation measures are identified to address and minimize construction emissions to the extent feasible.

The project area is located in the Imperial Valley region of the Salton Sea Air Basin (SSAB). The Imperial Valley region is under the regulatory jurisdiction of the Imperial County Air Pollution Control District ICAPCD. The ICAPCD monitors air pollutant levels to ensure the National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) are met and, if they are not met, develops strategies to meet the standards. Air pollution in the project area is monitored at stations located in Mecca and Indio.

The NAAQS, which are required to be set by the United States Environmental Protection Agency (U.S. EPA) under the Clean Air Act, provide public health protection, including protecting the health of sensitive populations such as asthmatics, children, and the elderly (U.S. EPA 2016). Similarly, the CAAQS are established by the California Air Resource Board to protect health of the most sensitive groups and are mandated by State law. U.S. EPA has set NAAQS for six pollutants, which are called “criteria pollutants”: carbon monoxide (CO), lead, nitrogen dioxide (NO₂), ozone (O₃), particulate matter (PM₁₀ and PM_{2.5}), and sulfur dioxide (SO₂). California has added three additional criteria pollutants: hydrogen sulfide, visibility reducing particles, and vinyl chloride. In addition, California regulates about 200 different chemicals, referred to as toxic air contaminants (TACs) (CARB 2021).

a) Less than Significant Impact with Mitigation. Air emissions from the proposed project will occur only during construction with gasoline and diesel emissions from workers travelling to and from the site daily, and from the earthwork equipment that will be used in grading. Construction of the proposed project would occur over approximately 6 to 8 months. Post-construction operations of the canal and reservoir do not produce any air emissions.

Table 6 and **Table 7** provide the estimated unmitigated and mitigated maximum daily construction emissions, respectively, that would be associated with the project and compares those emissions to the ICAPCD’s significance thresholds for construction emissions. Construction emissions were estimated using the CalEEMod Version 2020.4.0.1

Table 6 - Estimated Unmitigated Maximum Daily Construction Emissions (pounds)

Condition	ROG	NO _x	SO _x	PM ₁₀	PM _{2.5}	CO
Maximum Daily Construction Emissions	8.0	79.8	0.1	492.3	62.0	54.0
Significance Threshold	75	100	N/A	150	N/A	550
Potentially Significant (Yes or No)?	No	No	No	Yes	No	No

SOURCE: CalEEMod Version 2020.4.0.

Table 7 - Estimated Mitigated Maximum Daily Construction Emissions (pounds)

Condition	ROG	NO _x	SO _x	PM ₁₀	PM _{2.5}	CO
Maximum Daily Construction Emissions	8.0	79.8	0.1	16.8	8.9	54.0
Significance Threshold	75	100	N/A	150	N/A	550
Potentially Significant (Yes or No)?	No	No	No	No	No	No

SOURCE: CalEEMod Version 2020.4.0.

¹ California Air Pollution Control Officers Association (CAPCOA), *California Emissions Estimator Model User’s Guide Version 2020.4.0*, May 2021.

Mitigation Measure AQ-1 would reduce fugitive dust (PM10) emissions to a less-than-significant level. The project would also be required to comply with ICAPCD Regulation VIII – Fugitive Dust Control Measures and all other applicable ICAPCD rules and regulations.

Temporary emissions to complete construction would not pose a conflict with or obstruct implementation of ICAPCD's applicable Air Quality Plans. The construction contractor will be required to obtain a Construction Permit from the ICAPCD prior to initiating grading and earthwork. To ensure that construction operations minimize the potential for adverse air quality impacts, mitigation measures AQ-1 through AQ-3 are recommended to be as conditions of project approval. Therefore, the proposed project would have a less-than-significant impact with mitigation.

MM AQ-1: Dust Control

The Construction Contractor will obtain a Construction Permit from the IVAPCD for a fugitive dust control program. This program shall include, but not limited to the following:

- Water shall be applied at least two times daily, preferably in the mid-morning, afternoon, and after work is done for the day, to exposed surfaces including graded and disturbed areas in sufficient quantity to prevent generation of dust plumes.
- Traffic speeds on unpaved roads shall be limited to 25 miles per hour.
- Operations on unpaved surfaces shall be suspended when winds exceed 25 miles per hour.
- On-site stockpiles shall be covered or watered at least twice per day.

MM AQ-2: Construction Equipment Maintenance

The construction contractor shall ensure that heavy-duty diesel trucks and other construction equipment are properly tuned and maintained in accordance with the manufacturer's specifications to ensure minimum emissions under normal operations.

MM AQ-3: Vehicle Idling Time Limits

All construction vehicles, both on- and off-site, and construction equipment idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations). The construction contractor shall provide awareness training to equipment operators regarding this idling limit.

b) Less than Significant Impact with Mitigation. Intermittent (short-term construction emissions that occur from activities, such as site-grading, paving, and building construction)

The proposed project's emissions are related to construction only, which will be temporary extending over a period of 6 to 8 months. Mitigation measures AQ-1 through AQ-3 are intended to minimize the

project's contribution to air quality degradation and related air quality effects, and the short-term emissions during construction would not be expected to result in a considerable impact to air quality. Therefore, the proposed project would have a less-than-significant impact with mitigation.

c) No Impact. Sensitive receptor land uses are typically defined as residences, schools, daycare centers, playgrounds, and medical facilities. The closest sensitive receptors are located in the Wister and Niland areas at distances of approximately 3 to 3.5 miles respectively from the nearest portions of the project site. Construction and operation of the proposed project would not expose sensitive receptors to substantial pollutant concentrations. Therefore, the proposed project would have no impact.

d) No Impact. Any project with the potential to frequently expose members of the public to objectionable odors would be deemed to have a significant impact. The types of development that pose potential odor problems include agriculture, food processing, dairies, rendering, refineries, chemical plants, wastewater treatment plants, landfills, composting facilities, and transfer stations. The proposed project consists of earthwork to combine the two canal prisms to form a linear storage reservoir and does not include any activities or land uses that could produce significant odor, and there are no sensitive receptors within several miles of the project site. Therefore, the proposed project would have no impact for other emissions or odors.

Issues		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
IV. Biological Resources					
Would the project:					
a)	Have substantial adverse effects, either directly or through habitat modifications, on any species identified as a candidate, sensitive or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b)	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c)	Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d)	Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e)	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f)	Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

A biological resources assessment was completed for the project by HELIX Environmental Planning, Inc. (HELIX). Prior to conducting field surveys, a thorough review of relevant maps, databases, and literature pertaining to biological resources known to occur within the project vicinity was performed. Recent and historical aerial imagery (Google 2022), topographic maps (U.S. Geological Survey 2021), soils maps (U.S. Department of Agriculture [USDA] 2019), and other maps of the project site and vicinity were acquired and reviewed to obtain updated information on the natural environmental setting.

In addition, a query of sensitive species and habitats databases within five miles of the project site was conducted, including the USFWS Critical Habitat Portal (2021a), USFWS species status lists (USFWS 2022b), USFWS Information for Planning and Consultation database (IPaC; Attachment F; USFWS 2022a), California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDDB; CDFW 2022a), California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDDB; CDFW 2022a), and California Native Plant Society (CNPS) Electronic Inventory (CNPS 2022). The USFWS' National Wetlands Inventory (NWI) was also reviewed (USFWS 2021b) to obtain information regarding sensitive biological resources known to occur within the vicinity of the study area. The EIS/EIR for the Coachella Canal Lining Project was also referenced (Reclamation and CVWD 2001). The findings of the biological assessment are summarized below. The full report is attached as Appendix B.

a) Less than Significant with Mitigation. A general biological survey of the study area, which encompassed the approximately 120-acre project area and immediate vicinity (approximately 100 feet beyond the project site), was completed by HELIX Biologist Amy Mattson on January 6, 2022. The survey focused on inventorying existing vegetation communities and land cover types; qualifying habitat suitability and the potential for the occurrence of sensitive species, including federally-listed species protected under the Endangered Species Act; preliminarily identifying potential wetlands and other potential jurisdictional waters, including waters of the U.S. protected under the Clean Water Act (CWA); and identifying other sensitive biological resources, such as potential nesting habitat for passerine (songbirds) and raptors such as hawks (*Buteo*, spp.), falcons (*Falco*, spp.) and owls (*Strigiformes*, spp.) bird species protected under the Migratory Bird Treaty Act (MBTA).

Vegetation mapping was conducted during the general biological survey and mapped on aerial imagery. Vegetation mapping was conducted using a minimum mapping unit of 0.1 acre for uplands and 0.01 acre for wetlands. The study area was surveyed from alongside the canal with the aid of binoculars and observed or detected plant and animal species were recorded in field notes.

The study area is characterized by disturbed and developed land, which has been graded during the construction of the canal and the existing operations and maintenance roadway to the east of the canal. The study area includes the original earthen and the newer lined portion of the Coachella Canal, canal facilities, wildlife drinkers (shallow lined ponds providing water for wildlife), and the road. The original and lined canals and facilities are enclosed by perimeter fencing. Between the aboveground sections of the canal, check structures allow canal water to flow through siphons beneath desert washes. These open areas between the fenced, aboveground canal sections have been subjected to disturbance from vehicle traffic and erosion. Evidence of heavy disturbance was observed throughout the study area, including grading and/or vegetation removal within the original earthen canal, and vehicle traffic on the existing roads and across the underground portions of the canal.

Except for the Coachella canal, which extends north and south from the study area, and Coachella Canal Road that parallels the west side of the canal, the immediate surrounding area is undeveloped and comprised of desert scrub and generally unvegetated desert washes. Agricultural lands are located

approximately half a mile to the west of the study area, followed by the east highland canal, State Route 111, the Imperial National Wildlife Refuge (Wister Unit), and the Salton Sea occurring further west. Lands to the north and east appear to remain undeveloped but are part of the CMAGR. Interstate 10 and State Route 78 occur further to the north and east. The Imperial National Wildlife Refuge occurs approximately five miles west of the site. The nearest critical habitat unit designated by the USFWS is for desert tortoise (*Gopherus agassizii*), approximately 12.5 miles to the east of the site, on the eastern side of the Chocolate Mountains.

Two vegetation communities and land cover types were mapped within the study area during the general biological survey: disturbed habitat and urban/developed land. Disturbed habitat includes land cleared of vegetation (e.g., dirt roads); land containing a preponderance of non-native plant species, such as non-native grasses and forbs, ornamentals, or other weedy exotic species that take advantage of previously cleared disturbed land, or land showing signs of past or present usage that removes any capability of providing viable habitat. This includes areas that have been physically disturbed and are no longer recognizable as a native or naturalized vegetation association.

Within the study area, disturbed habitat includes the original earthen canal, the berm between the original and current canals, the graded area alongside the canals, the existing operations and maintenance road outside of CVWD fencing, and the gaps between canal sections. Most of this vegetation community was bare except for patches of short salt cedar (*Tamarisk* sp.) in the bottom of the original earthen canal in the northern half of the study area. Scattered Russian thistle (*Salsola tragus*) and very few native plants were present in the upper slopes of the original canal: burrobush (*Ambrosia salsola*), sweetbush (*Bebbia juncea* var. *aspera*), brittlebush (*Encelia farinosa*), and desert holly (*Atriplex hymenelytra*). Few, small patches of immature cattails (*Typha* sp.), Mexican sprangle-top (*Leptochloa fusca* ssp. *uninervia*), and dock (*Rumex* sp.) were present in the original channel, generally near the artificial wildlife drinkers, which are human-made shallow lined ponds that provide an artificial water source for wildlife.

Urban/developed land includes land that has been constructed upon or otherwise physically altered to an extent that vegetation is no longer supported or limited to non-native ornamental plantings. Urban/developed land is characterized by permanent or semi-permanent structures, pavement or hardscape, and landscaped areas that often require irrigation. Areas where no natural land is evident due to a large volume of debris or other materials being placed upon it may also be considered developed. Within the study area, urban/developed land includes the existing lined portion of Coachella Canal, facilities, and the wildlife drinkers.

Locations of sensitive plant and animal species were recorded during the survey if detected. Animal identifications were made in the field by visual observation or detection of calls, burrows, tracks, scat, and other animal signs. Plant identifications were made in the field. Physical parameters assessed included vegetation and soil conditions, and presence of indicator plant and animal species, slope,

aspect, and hydrology. Representative photos were taken and are included as Attachment A in Appendix B of this IS/MND.

None of the special-status plant species known to occur in the region have the potential to occur on the project site, primarily due to very poor habitat conditions for plant species. The study area is characterized by an existing roadway that is regularly used and maintained; a concrete lined canal; the original earthen canal that was disturbed during construction of the concrete lined canal and is no longer supplied by a water source; and disturbed washes crossing the project alignment (over the canal siphons) that are not vegetated and are subject to vehicle disturbance and scouring. Construction of the canals and roadway, as well as ongoing disturbances (i.e., vehicle use and erosion), have modified the landscape, soil, and vegetation composition of the study area, such that the appropriate vegetation community makeups and hydrology regimes associated with special-status plant species do not exist. Therefore, special-status plant species are not likely to occur, additional rare plant surveys are not warranted, and the project would have no impact on such species.

No special-status plant species were observed during the general biological survey, and none of the 17 species evaluated have a moderate or high potential to occur within the study area due to very poor habitat conditions for plant species. Sensitive natural communities include land that supports unique vegetation communities or the habitats of rare or endangered species or subspecies of animals or plants as defined by Section 15380 of the CEQA Guidelines. The study area does not support any sensitive natural communities. The site is located outside of Critical Habitat designated by the U.S. Fish and Wildlife Service (USFWS) and outside of other lands targeted for conservation under the Coachella Valley Multiple Species Habitat Conservation Plan (MSHCP) or other regional plans.

No special-status animal species, including the nine federally listed species and candidate species, were observed during the general biological survey, and none of the 42 species evaluated have a moderate or high potential to occur within the study area. The potential for special-status animal species to occur within the study area is not likely or low due to development, poor habitat conditions for animals, and existing perimeter fencing. Additional focused and protocol-level surveys for special-status animal species are not warranted. None were identified in the EIS/EIR for the CCLP as occurring within the study area.

The federal and California State listed threatened desert tortoise was the only species evaluated as having a low potential to occur in the study area due to the presence of marginal habitat outside of canal fencing. These areas are where check structures allow canal water to flow through siphons beneath desert washes. These open areas have been subjected to previous disturbance from the construction of the original canal and the canal lining project, as well as ongoing disturbance from vehicles traveling between the existing operations and maintenance road (Gas Line Road) and Coachella Canal Road, and erosion. Vegetation is lacking in both the washes and on the operations and maintenance road to the east of the canals. The other portions of the study area are fenced, which could act as a barrier to desert tortoise. Areas compacted and/or lined for the canal are presumably unsuitable for tortoise. Although

desert tortoise may occur in washes, the extensive disturbance in these areas significantly degrades the habitat conditions for the species and make it unlikely that tortoise individuals would be sustained on the site. Additionally, the study area occurs approximately 3.2 miles outside of this species' range. Therefore, the desert tortoise currently has a low potential to occur based on current conditions.

Portions of the project site support salt cedar shrubs (*Tamarisk* sp.) with the potential to support common (non-sensitive) nesting birds protected under the MBTA and California Fish and Game (CFG) Code. Nesting birds with potential to nest on or immediately adjacent to the site include common passerines (i.e., songbirds), such as black-tailed gnatcatcher (*Polioptila melanura*) and common raptors (i.e., birds of prey), such as red-tailed hawk (*Buteo jamaicensis*). Compliance with the MBTA and CFG Code is a regulatory requirement. Mitigation measure BIO-1 shall be completed by the project proponent to ensure that no impacts occur to nesting birds. In addition, a requirement for all workers to receive training regarding measures to be taken on a daily basis for protection of environmentally sensitive biological resources with emphasis on listed and special-status species is defined in mitigation measure BIO-2.

MM-BIO-1: Preconstruction Surveys for Nesting Birds

~~If the removal of trees and/or shrubs must occur during the general passerine breeding season (February 1 to August 31) or general raptor nesting season (January 15 to July 15), a qualified biologist shall conduct a nesting bird survey within seven days of removal activities to determine the presence or absence of nesting birds. If no active nests are found during the pre-construction surveys, then no additional action shall be required. If an active nest is found, then the nest and an appropriate buffer shall be implemented. The initial size of the avoidance buffer shall be 300 feet for passerines and 500 feet for raptors and shall be reduced at the discretion of the qualified biologist depending on the species and level of disturbance. Activities shall be allowed to proceed within the avoidance buffer once the young have fledged and the nest is confirmed no longer active, as determined by the qualified biologist.~~

Nesting bird surveys shall be performed by a qualified avian biologist no more than 3 days prior to vegetation removal or ground-disturbing activities. Pre-construction surveys shall focus on both direct and indirect evidence of nesting, including nest locations and nesting behavior. The qualified avian biologist will make every effort to avoid potential nest predation as a result of survey and monitoring efforts. If active nests are found during the pre-construction nesting bird surveys, a qualified biologist shall establish an appropriate nest buffer to be marked on the ground. Nest buffers are species specific and shall be at least 300 feet for passerines and 500 feet for raptors. A smaller or larger buffer may be determined by the qualified biologist familiar with the nesting phenology of the nesting species and based on nest and buffer monitoring results. Established buffers shall remain on-site until a qualified biologist determines the young have fledged or the nest is no longer active. Active nests and adequacy of the established buffer distance shall be monitored daily by the qualified biologist until the qualified biologist has determined the young have fledged or the Project has been completed. The qualified biologist has the authority to stop work if nesting pairs exhibit signs of disturbance.

No less than 60 days prior to the start of Project-related activities, a burrowing owl habitat assessment shall be conducted by a qualified biologist according to the specifications of the *Staff Report on Burrowing Owl Mitigation* (California Department of Fish and Game, March 2012 or most recent version).

If the habitat assessment demonstrates suitable burrowing owl habitat, then a focused burrowing owl surveys shall be conducted by a qualified biologist according to the Staff Report on Burrowing Owl Mitigation. If burrowing owls are detected during the focused surveys, the qualified biologist shall provide appropriate distances for construction activity to stay away from occupied burrows, through the use of a no work zone or avoidance buffer. Biologist shall ensure If impacts to occupied burrows cannot be avoided, information shall be provided regarding adjacent or nearby suitable habitat available to owls along with proposed relocation actions. Proposed implementation of Burrowing Owl relocation should only be considered as a last resort, after all other options have been evaluated as relocation is not in itself an avoidance, minimization, or mitigation method and has the possibility to result in take. Prior to considering burrowing owl relocation the qualified biologist and project applicant shall consult with CDFW to confirm the location and determine if the Burrowing Owls are appropriate candidates for the relocation process. If no suitable habitat is available nearby, details regarding the creation of artificial burrows (numbers, location, and type of burrows) and management activities for relocated owls is to be reported to CDFW.

Preconstruction burrowing owl surveys shall be conducted no less than 14 days prior to the start of Project-related activities and within 24 hours prior to ground disturbance, in accordance with the Staff Report on Burrowing Owl Mitigation (2012 or most recent version). Preconstruction surveys should be performed by a qualified biologist following the recommendations and guidelines provided in the Staff Report on Burrowing Owl Mitigation. If the preconstruction surveys confirm occupied burrowing owl habitat, the qualified biologist shall develop a mandatory avoidance buffer and no work zones around the burrow location. If work must occur within the avoidance buffer, the qualified biologist will monitor the activity to ensure it does not affect the Burrowing Owl behavior. The qualified biologist will also consider the placement of visual and sound barriers if the avoidance buffer perimeter is reduced until adequate measures to prevent impacts to owls are put in place.

Mitigation measure BIO-1 would ensure no impacts to nesting birds occur pursuant to regulatory requirements.

MM BIO-2: Worker Environmental Awareness Program

A Worker Environmental Awareness Program (WEAP) shall be implemented to ensure that Project construction occurs within a framework of safeguarding environmentally sensitive resources. The WEAP shall include information on biological resources that may occur on the site, with emphasis on listed and special-status species. Education shall include, but not be limited to, ecology, natural history, endangerment factors, legal protection, site mitigation measures, and hierarchy of command. Site rules of conduct shall be identified, including but not limited to: speed limits, work areas that must be

accompanied by a biological monitor, parking areas, looking under parked vehicles prior to moving them, trash deposition, off-site conduct in the area of the Project, and other employee response protocols. Teamwork will be emphasized, but it will be clear that willful non-compliance may result in sufficiently severe penalties to the contractor that the contractor may dismiss the offending employee.

The educational format will be a video, shown initially by the Project Biologist, and subsequently if needed for new employees, by trained and approved personnel. The Project Biologist also may be videotaped giving the first program, for assistance to subsequent instructors. All workers completing the education program shall be given a wallet card with site "rules" and contact cell phone numbers, and a sticker to affix to their hard hat. Each shall sign a sheet attesting to completing the training program.

b) No Impact. Project development would be restricted to common upland landforms that are not natural riparian habitat types or sensitive natural communities and do not require mitigation. Therefore, no impacts to riparian habitat or sensitive natural communities would occur, and mitigation is not required.

c) No Impact. A preliminary assessment of potentially jurisdictional waters with survey area was completed concurrent with the general biological survey. The preliminary assessment focused on identifying ordinary high-water mark and other hydrology indicators, riparian and wetland vegetation, surface soils, topography, and other data, but did not include excavation of soil pits and establishment of wetland sampling points, with the intent to establish conservative limits of a jurisdictional delineation.

Prior to beginning fieldwork, HELIX reviewed aerial photographs (1"= 100' scale), topographic maps and data (1"= 100' scale), and National Wetlands Inventory maps to assist in determining the location of potential jurisdictional areas in the project site. The field assessment was conducted to identify and map potential water and wetland resources that could be subject to U.S. Army Corps of Engineers (USACE) jurisdiction pursuant to Section 404 of the CWA (33 USC 1344), RWQCB jurisdiction pursuant to CWA Section 401 or State Porter-Cologne Water Quality Control Act, and CDFW jurisdiction pursuant to Sections 1600 et seq. of the CFG Code. Areas generally characterized by depressions, drainage features, and riparian and wetland vegetation, were evaluated.

The project consists of the modification of an existing canal that crosses multiple desert washes, which could potentially be federally protected waters as defined by CWA Section 404, or other potential jurisdictional resources. This section of the canal was not determined to be USACE jurisdictional when evaluated for the CCLP.

The current regulatory guidance on the CWA Section 404 follows that which pre-dates the 2015 guidance. The CCLP was evaluated under the pre-2015 regulatory regime before the Navigable Waters Protection Rule of 2020 was adopted. On August 30, 2021, a court order in the case of *Pascua Yaqui Tribe v. U.S. Environmental Protection Agency* vacated and remanded the Navigable Waters Protection

Rule. In October 2021, the U.S. District Court of the Northern District of California vacated the EPA's 2020 Clean Water Act Section 401 Certification Rule, which once again reinforced a return to a pre-2015 regulatory regime to be more consistent with the statutory text of the 1972 CWA (EPA 2022). Finally, on April 6, 2022, the U.S. Supreme Court issued a stay of the October 2021 order that applies nationwide; therefore, the current interpretation of waters of the U.S. is once again consistent with the pre-2015 definition (EPA 2021).

Guidance on the interpretation of the waters of the U.S. definition occurred subsequent to the CCLP, following multiple court cases. In 2001 and again in 2003, the agencies developed guidance to address the definition of "waters of the United States" under the CWA following the *Solid Waste Agency of Northern Cook County* (SWANCC) Supreme Court decision. This guidance indicates that CWA jurisdiction should not be asserted over isolated waters that are both intrastate and non-navigable, where the sole basis available for asserting CWA jurisdiction rests on any of the factors listed in the "Migratory Bird Rule." CWA jurisdiction should be asserted over traditional navigable waters (and adjacent wetlands) and their tributary systems (and adjacent wetlands).

In 2007 and 2008 subsequent to the *Rapanos v. United States*, and *Carabell v. United States* Supreme Court decisions (*Rapanos*), the USACE and EPA provided additional guidance for implementing the definition of "waters of the United States" under the CWA. Guidance following SWANCC and *Rapanos* is not expected to change the regulatory framework for the USACE's previous determination on the Coachella Canal.

The Coachella Canal is an artificially created, serviceable facility created wholly within uplands. It is a controlled system whereby flows are regulated, and the entire system can be manipulated for the delivery of water for storage and distribution. It was not constructed to collect or convey natural flows. As such, it does not meet the definition of a relatively permanent water or tributary to a relatively permanent water. It also does not meet the definition of a traditional navigable water. Therefore, the Coachella Canal still does not meet the definition of waters of the U.S. and activities associated with the proposed project would not be expected to be regulated by the USACE pursuant to Clean Water Act Section 404. Based on the current regulatory guidance, the Coachella Canal still does not represent waters of the U.S. and the proposed project's activities would not be regulated by the USACE pursuant to CWA Section 404.

Although the Coachella Canal is expected to be considered an artificial water of the State regulated pursuant to Porter-Cologne through WDRs, the project is expected to qualify as an exclusion for routine and emergency operation and maintenance activities conducted by public agencies, water utilities, or special districts that result in discharge of dredged or fill material to artificial, existing waters of the State. No adverse effects on waters of the State are anticipated with the implementation of standard BMPs and other avoidance and minimization measures incorporated into the project. These measures may include restriction of work during dry conditions, demarcation of approved work limits, installation of temporary silt fencing, sand/gravel bags, and watering for dust control. Similarly, no natural

streambed or riparian habitat that would meet the definitions presented in CFG Code Sections 1600 et seq. is present, and the project would not be expected to adversely affect fish and wildlife resources with implementation of BMPs and other avoidance and minimization measures.

d) Less than Significant. The project site encompasses disturbed and developed land outside of any areas targeted for conservation or designated as a corridor or linkage. Although the canal and/or its wildlife drinkers are water sources that may be attractive to desert wildlife, and fish may pass through the canal, the finished project would not change these conditions for wildlife. Access to water would be retained where wildlife drinkers are impacted by the project, and this section of the canal will continue to flow between the upstream and downstream portions of the canal. None of these conditions would change as a result of the project.

Review of database search results of available special status species records reported from the U.S. Fish and Wildlife Service (USFWS) and California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDDB) confirm that there are no special status fish species records reported within the Coachella Canal. The search included the canal downstream, all the way to Indio, through the project reach and upstream to the U.S./Mexico border.

The only special status fish species reported to the area from historical occurrences appears to be the razorback sucker (*Xyrauchen texanus*), which is federally and State listed as endangered. The occurrences reported for sucker are not associated with the Coachella Canal and include an artificial impoundment known as Galleano Reservoir and historic occurrence (1974) from the East Highline Canal and associated ponds over 5.0 miles from the site. There are no records of the razorback sucker reported for the Coachella Canal. The Bureau of Reclamation's Record of Decision from 2002 for the canal lining project concluded that the species is presumed absent and highly unlikely to occur.

(See: <http://www.riversimulator.org/Resources/LawOfTheRiver/HooverDamDocs/Supplements/2002RecordOfDecisionCoachellaCanalLiningProject.pdf>).

Fish species reported from available fishing websites include common carp (*Cyprinus carpio*), flathead catfish (*Pylodictis olivaris*), channel catfish (*Ictalurus punctatus*), largemouth bass (*Micropterus salmoides*), and striped bass (*Morone saxatilis*). (Sources: www.fishbrain.com/fishing-reports, and www.bdoutdoors.com). All are non-native, warmwater (game) fishes that are not afforded any special status or protections other than requiring a license/permit for capture (fishing license). No mitigation for these species is required.

Six large mammal "drinkers" that were constructed in the bottom of the original canal as part of the CCLP will be replaced with earthen ramps in the same locations extending to the reservoir water surface, with fencing to prevent animals from getting into the flowing reservoir. During construction temporary wildlife water troughs will be installed outside of the construction area in the same approximate location of the existing drinkers, to be filled daily by the on-site water truck. Three large mammal drinkers on the

west side of the canal will not be modified. Therefore, the potential impacts of the project on wildlife movement, fish and nursery sites would be less than significant and mitigation is not required.

e) No Impact. There are no local policies or ordinances that are applicable to the project based on the findings of the biological resources technical study. Therefore, the project would have no conflict with local policies or ordinances and no impact, and mitigation is not required.

f) No Impact. The project does not occur within the boundaries of, or subject to the jurisdiction of any adopted conservation plans. The canal segments that will be modified to for the storage reservoir are entirely within Imperial County. The Coachella Valley Multi-Species Habitat Conservation Plan applies to lands within Riverside County and does not extend into Imperial County. The Imperial Irrigation District Natural Communities Conservation Plan (NCCP) covers the District's lands and extends to the west to the East Highline Canal that lies approximately 1.5 miles downslope to the west of the Coachella Canal. Therefore, the project has no potential to conflict with the provisions of either of these adopted habitat conservation plans, and mitigation is not required.

Issues		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
V. Cultural Resources					
Would the project:					
a)	Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b)	Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c)	Disturb any human remains, including those outside of formal cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Discussion:

A detailed *Cultural Resources Technical Report* of the Mid-Canal Storage Project was prepared by HELIX Environmental Planning, Inc. (HELIX), May 2022. Their complete report is included in Technical Appendix C and is briefly summarized in these responses to the CEQA Checklist questions. The intent of the cultural resources assessment was to determine the potential of ground disturbances associated with this project to affect significant cultural resources, which addresses both historic-era and prehistoric resources, and is based on the results of an archival records search and research, Sacred Lands File search, Native American coordination, a site visit to the project area, and an assessment of the significance of impacts to archaeological resources and historic-era structures. The Area of Potential Effects (APE), also referred to herein as the project area, is located in the community of Wister, in Imperial County. The approximately 120-acre project area is within Assessor’s Parcel Numbers (APNs) 003-050-018, 003-050-025, 003-120-014, 003-120-022, 003-130-006, 003-200-047, and 003-210-001, and bordered by Gasline Road to the east and Coachella Canal Road to the west. The project is located in Township 9S, Range 14E, East ½ of Section 36; SW ¼ of SW ¼ of Section 31; East ½ of Section 6; Southwest 1/4 of Section 5; Northeast ¼ of Section 8; South ½ of Section 9; Northwest ¼ of Section 15, on the U.S. Geological Survey (USGS) 7.5' Wister quadrangle.

a) Less than Significant Impact with Mitigation. An archaeological records search, conducted at the South Coastal Information Center (SCIC) on December 07, 2021, indicated that 20 previous cultural resource studies occur within the records search limits, four of which overlap with the project area. The studies consist of cultural resource reviews, environmental impact reports, a biological survey, a mining and reclamation plan, resource inventory and evaluation reports, a historic and archaeological resources protection (HARP) plan, archaeological and cultural resources surveys, history of local development, and a consultation report. The records search results also indicated that a total of 22 cultural resources have been previously recorded within one-half mile of the project area; one of which has been documented

within the project site (P-13-007858/33-005705). P-13-007858/P-33-005705 is the National Register of Historic Places-eligible Canal which was constructed between 1938 and 1948.

The field investigations included a site visit of the study area on January 6, 2022. The site visit did not result in the identification of any cultural material within the project area. However, the Coachella Canal itself is a historic property that is both an archaeological and historic built environment resource.

Based on the results of the current study, no historic properties will be affected by the proposed Mid-Canal Storage Project. While the project will modify three segments of the Canal between siphons 11 and 14, work is limited to the removal of an embankment between the original, unlined Coachella Canal and a parallel lined new canal constructed in 2006. No historic features contributing to the significance of the Canal will be impacted by the work. The infilling of the unlined, original canal with water will serve to restore this portion of the feature to a use mirroring its original purpose as a water conveyance feature. Re-inundating the portion of the unlined canal will also help to preserve the portion of the unlined original canal between siphons 11 and 14, which is currently not in use. Impacts from the project to all identified historical resources will be less than significant.

b) Less than Significant Impact with Mitigation. While no archaeological sites have been identified within the project's area of potential affects, the lands surrounding the project are sensitive for archaeological deposits, particularly along the ancient shoreline of the former Lake Cahuilla (present day Salton Sea) west of the Coachella Canal. In this case, such resources may be encountered in undisturbed areas within the embankment that will be removed for the project, and beneath the bottom of the original earthen canal. The potential for impacts is somewhat speculative, however, it is recommended that the Worker Environmental Awareness Program include a session on cultural resources and actions to be taken should artifacts be encountered. In addition, archaeological monitoring should be conducted during project development to address this potential impact. The monitoring would include the presence of archaeological monitors during initial ground-disturbing activities in undisturbed soils of the project site. Monitors would have the authority to temporarily halt or redirect grading and other ground-disturbing activity in the event that cultural resources are encountered. MM CUL-1 includes requirements for the cultural resources WEAP. MM CUL-2 includes requirements for archeological monitoring during project grading activities.

An archaeological monitoring program should be conducted during initial ground-disturbing activities of undisturbed soils in the project site. If significant cultural material is encountered, the project archaeologist will coordinate with CVWD, and Reclamation to define the significance of the find, and appropriate actions (for example left in-situ, reburied in a nearby area, inventoried and recorded) to be taken.

c) Less than Significant Impact with Mitigation. The project site does not lie near any known cemeteries. The potential for finding human remains on the site is highly unlikely, and potential impacts are less than significant, but the following mitigation measures are recommended as required conditions

of approval to be implemented in the event that cultural artifacts, or human remains are discovered during grading and construction activities.

MM CUL-1: Cultural Resources Worker Environmental Awareness Program Training

A Worker Environmental Awareness Program (WEAP) shall be implemented to ensure that Project construction occurs within a framework of safeguarding environmentally sensitive resources. The WEAP shall include information on cultural resources that may occur on the site, including the types and forms of artifacts that occur in the region. Education shall include, but not be limited to, legal protection, site mitigation measures, the actions that must be taken should cultural finds be made, and the hierarchy of command.

The educational format will be a video, shown initially by the Principal Investigator or their assignee, and subsequently if needed for new employees, by trained and approved personnel. The Principal Investigator or their assignee also may be videotaped giving the first program, which can then be presented to new arrivals to the project. All workers completing the education program shall be given a wallet card with site "rules" and contact cell phone numbers, and a sticker to affix to their hard hat. Each shall sign a sheet attesting to completing the training program. All site workers will be required to complete the training prior to accessing the project.

MM CUL-2: Unanticipated Discovery of Cultural Resources

In the event that cultural resources are unearthed during project construction, CVWD's construction inspector and/or a project archaeologist shall temporarily suspend all earth disturbing work within a 100-foot radius of the discovery. A qualified professional archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards for prehistoric and historic archaeologist, shall be retained to evaluate the significance of the find, and shall have the authority to modify the no-work radius as appropriate, using professional judgment. The following notifications shall apply, depending on the nature of the find:

If the professional archaeologist determines that the find does not represent a cultural resource, work may resume immediately, and no agency notifications are required.

If the professional archaeologist determines that the find does represent a cultural resource from any time period or cultural affiliation, they shall immediately notify CVWD's Construction Inspector and Environmental Services Department. CVWD shall consult on a finding of eligibility and implement appropriate treatment measures, and monitoring as needed if the find is determined to be eligible for inclusion in the National Register of Historic Places or California Register of Historical Resources. Work may not resume within the no-work radius until CVWD, through consultation as appropriate, determines that the site either: 1) is not eligible for the National Register of Historic Places or California Register of Historical Resources; or 2) that the treatment measures have been completed to its satisfaction.

MM CUL-3 Unanticipated Discovery of Human Remains

Although there is no evidence to suggest the presence of human remains in the project area, their discovery is a possibility during project construction. If such an event did occur, the specific procedures outlined by the NAHC, in accordance with Section 7050.5 of the California Health and Safety Code and Section 5097.98 of the Public Resources Code, must be followed:

1. All excavation activities within 100 feet of the remains will immediately stop, and the area will be protected with flagging or by posting a monitor or construction worker, to ensure that no additional disturbance occurs.
2. The project owner or their authorized representative will contact the County Coroner.
3. The coroner will have two working days to examine the remains after being notified in accordance with HSC 7050.5. If the coroner determines that the remains are Native American and are not subject to the coroner's authority, the coroner will notify NAHC of the discovery within 24 hours.

The NAHC will immediately notify the Most Likely Descendant (MLD), who will have 48 hours after being granted access to the location of the remains to inspect them and make recommendations for their treatment. Work will be suspended in the area of the find until CVWD and the MLD approves the proposed treatment of human remains.

Issues		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
VI. Energy					
Would the project:					
a)	Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b)	Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion:

Energy use for the project includes gasoline and diesel fuel consumed by workers traveling to and from the project site and grading equipment during construction. Electricity from the new powerline to be constructed will operate the radial gate at Siphon 14 and the related SCADA system for long term operations. Other than for operation of the radial gate, reservoir operations operate by gravity flow and are inherently efficient since they require no mechanical power source.

a) Less Than Significant. Imperial Irrigation District (IID) is a public utility company providing electricity in the project area, with a 6,471-square-mile service area that covers all of Imperial County, along with parts of Riverside and San Diego Counties. The project site is served by the Southern California Gas Company for natural gas, and electricity is supplied by IID.

b) Less Than Significant. The project is not energy intensive, and the use of routine gasoline and diesel-powered earthmoving and grading equipment for construction is not considered to be either wasteful or inefficient and is essential to complete the project. The construction fleet contracted for the proposed project would be required to comply with the California Air Resources Board In-Use Off-Road Diesel-Fueled Fleets Regulations, which would limit vehicle idling time to 5 minutes, restrict adding vehicles to construction fleets with older-tier engines, and establish a schedule for retiring older, less fuel-efficient engines from the construction fleet. As such, the proposed project would not result in wasteful, inefficient, or unnecessary consumption of energy during construction. In addition, the project will reduce long term maintenance associated with concrete panel repairs and result in net decrease in energy consumption.

Long-term reservoir operations are by gravity flow and are very energy efficient. The small electrical connection needed for long-term radial gate and SCADA system operations is more efficient than use of gasoline or diesel-powered motors. Therefore, the proposed water storage reservoir will have no adverse effect related to energy consumption.

Mitigation Measures: None required or recommended.

Issues	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact	
VII. Geology And Soils Would the project:					
a)	Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
	i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map Issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	ii. Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	iii. Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	iv. Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b)	Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c)	Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d)	Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e)	Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f)	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion:

The majority of Southern California, including the Imperial and Coachella valleys, is considered a seismically active region and is subject to risk from earthquakes and related geologic effects that are triggered by earthquakes such as ground shaking, fault rupture, landslides, liquefaction, subsidence and

seiches. The San Andreas Fault lies only a few miles to the west of the Coachella Canal alignment, and numerous related fault traces exist near the canal. Review of California Geological Survey fault line mapping for the Wister area in proximity to the Mid-Canal Storage Reservoir project site confirms that no known fault traces cross the canal in the project area. (<https://maps.conservation.ca.gov/cgs/fam>, search Wister, CA, 2022). Seismic hazards, including liquefaction, were also evaluated based upon information from the California Geological Survey. (Seismic Hazards Program, California Geological Survey, California Department of Conservation, Liquefaction, California Liquefaction Zones; [California Liquefaction Zones | GIS Map Data | State of California | Koordinates.](#))

a) i. No Impact. The purpose of the Alquist-Priolo Earthquake Fault Zoning Act is to mitigate the hazard of surface faulting by preventing the construction of buildings used for human occupancy over an area with known faults. The nearest major fault is the San Andreas Fault Zone located approximately two miles west of the site. Impacts from fault rupture are limited to the immediate area of the fault zone where the fault breaks along the ground surface. Segments of the Coachella Canal to the north of the project site do cross the San Andreas Fault and related fault lineaments, but no fault lines cross the canal segments between siphons 11 and 14 to be modified to create the storage reservoir. Buildings intended for human occupancy are not a part of this project.

a) ii. Less than Significant. Damage from ground shaking can occur at great distances from the fault. The project is not located on or adjacent to an active fault but is located in close proximity to a very active seismic zone, and like every other built structure in the region, could be damaged by severe ground shaking. The project has been designed in conformance with seismic engineering standards to reduce potential damage in the event of ground shaking. Exposure to seismic ground shaking is an existing baseline condition for the Coachella Canal and will not be changed with development of the storage reservoir project within the footprint of the existing canal channels.

a) iii. No Impact. Liquefaction can occur under saturated conditions, but this area of the Coachella Canal the water table is generally deep below the ground surface, with some perched groundwater at shallower depth associated with the desert-dry washes. According to the project engineers, no shallow groundwater was encountered during construction of the siphons that cross these washes. The geotechnical investigation for the storage reservoir did trenching to four feet below the canal bottom and did not encounter any subsurface water, and the potential for liquefaction is considered to be low. Review of the California Geological Survey liquefaction map for Southern California confirmed that this region is not susceptible to liquefaction. (California Geological Survey, Department of Conservation, Seismic Hazards Program, Liquefaction Zones Map, <https://Koordinates.com/layer/97126-california-liquefaction-zones>), updated 2019.)

a) iv. Less than Significant. Construction and operation of the proposed storage project includes modification of existing water conveyance structures excavated into the side slope of the base of the Chocolate Mountains and associated alluvial fans. The slope is less than 10 percent and the modification to create the storage reservoir by joining the two canal channels into a single channel has no potential

to create additional exposure of people or structures to risk of loss, injury, or death involving landslides. Therefore, there is no seismic related potential impact of the project.

b) No Impact. Construction of the storage reservoir will be done completely within the existing footprint of the west slope of the lined canal segment and the eastern slope of the original earthen canal segment and has no potential to create erosion hazards or any loss of topsoil. Flow velocities in the canal and future storage reservoir channel do not produce scour conditions that would result in erosion of the bed or banks. To reduce the potential for wind erosion during construction, regular watering is required during grading and earthwork to prevent soil erosion (see MM AQ-1 above). Thus, substantial soil erosion or loss of topsoil is not likely to result from construction or operation of the canal storage reservoir project.

c) No Impact. The project area located on low-gradient slopes that are not susceptible to on- or off-site landslides, liquefaction, or collapse. No fault lines cross the site, and the canal is not underlain by saturated sediments that would be susceptible to lateral spreading, subsidence, liquefaction, or collapse. Therefore, there are no potential impacts related to these geologic factors.

d) Less than Significant. The existing clay soils in this canal segment are expansive and are likely responsible for the regular cracking of the concrete liner that has led to the excessive maintenance costs in this location, which is one of the project's objectives to remediate. After removal of the concrete liner, the heavy clay soils will be used as a construction material by spreading them across the bottom and sides of the storage reservoir to create an impermeable liner. The west-facing eastern slope of the storage reservoir will be armored with a rock layer over the clay liner to prevent wind-caused waves from eroding the bank.

e) No Impact. Sanitary portable toilets will be utilized by workers during construction of the project. The proposed storage reservoir project does not have any need for septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater. Therefore, no impact is anticipated, and no mitigation is recommended.

f) Less than Significant Impact. Significant paleontological resources are fossils or assemblages of fossils that are unique, unusual, rare, uncommon, diagnostically or stratigraphically important, and those that add to an existing body of knowledge in specific areas, stratigraphically, taxonomically, or regionally. They include fossil remains of large to very small aquatic and terrestrial vertebrates, remains of plants and animals previously not represented in certain portions of the stratigraphy, and assemblages of fossils that might aid stratigraphic correlations, particularly those offering data for the interpretation of tectonic events, geomorphologic evolution, paleoclimatology, and the relationships of aquatic and terrestrial species. The proposed project area is located on an upland portion of the Salton Trough, a large tectonic depression that includes the Coachella and Imperial Valleys of Southern California, and the western half of the Mexicali Valley and the Colorado River delta in Mexico. Over the past 4.5 million years, the lowlands of the Salton Trough have been periodically inundated with fresh

and brackish waters, influenced by the Gulf of California, the Colorado River, and ancient Lake Cahuilla. Lake Cahuilla was a former freshwater lake that periodically occupied a major portion of the Salton Trough, approximately 10,000 to 240 years ago. These types of deep basin sedimentary deposits are highly sensitive for paleontological resources.

As a member of the Southern California Association of Governments (SCAG), Imperial County is included in a regional assessment of paleontological resources that was prepared in 2019. (*DRAFT Paleontological Resources Technical Report for the 2020–2045 Regional Transportation Plan and Sustainable Communities Strategy for the Southern California Association of Governments*, October 2019, prepared by SWCA Environmental Consultants. The report notes that the Imperial County General Plan does not address paleontological resources (page 20). No publicly available paleontological resources database for the project area was identified in an internet search conducted for this assessment. The project area is not constructed in deep basin sedimentary deposits, and the desert dry washes across the canal siphons that may include sedimentary deposits will not be disturbed by project construction or operations. No paleontological resources or unique geological features were detected during the geotechnical investigation undertaken in the preparation of this environmental assessment. The previous disturbance of the project site for construction of the original earthen canal and the newer lined canal segments renders the potential for finding fossils on the site highly unlikely, and potential impacts are determined to be less than significant.

Mitigation Measures: None required or recommended.

Issues		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
VIII. Greenhouse Gas Emissions					
Would the project:					
a)	Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b)	Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

Certain gases in the earth’s atmosphere, classified as greenhouse gases (GHGs), play a critical role in determining the earth’s surface temperature. Solar radiation enters the earth’s atmosphere from space. A portion of the radiation is absorbed by the earth’s surface and a smaller portion of this radiation is reflected toward space. This absorbed radiation is then emitted from the earth as low-frequency infrared radiation. The frequencies at which bodies emit radiation are proportional to temperature. Because the earth has a much lower temperature than the sun, it emits lower-frequency radiation. Most solar radiation passes through GHGs; however, infrared radiation is absorbed by these gases. As a result, radiation that otherwise would have escaped back into space is instead trapped, resulting in a warming of the atmosphere. This phenomenon, known as the greenhouse effect, is responsible for maintaining a habitable climate on earth. Without the greenhouse effect, the earth would not be able to support life as we know it.

Prominent GHGs contributing to the greenhouse effect are CO₂, methane (CH₄), and N₂O. Fluorinated gases also make up a small fraction of the GHGs that contribute to climate change. Fluorinated gases include chlorofluorocarbons, hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, and nitrogen trifluoride; however, it is noted that these gases are not associated with typical land use development. Human-caused emissions of these GHGs in excess of natural ambient concentrations are assumed to be responsible for intensifying the greenhouse effect and leading to a trend of warming of the earth’s climate, known as global climate change or global warming.

Table 8 lists the primary GHGs assumed to contribute to global climate change, with a description of their physical properties, primary sources, and contributions to the greenhouse effect. Each GHG differs in its ability to absorb heat in the atmosphere based on the lifetime, or persistence, of the gas molecule in the atmosphere. CH₄ traps over 25 times more heat per molecule than CO₂, and N₂O absorbs 298 times more heat per molecule than CO₂ (IPCC 2014). Often, estimates of GHG emissions are presented in carbon dioxide equivalents (CO₂e), which weight each gas by its global warming potential. Expressing

GHG emissions in CO₂e takes the contribution of all GHG emissions to the greenhouse effect and converts them to a single unit equivalent to the effect that would occur if only CO₂ were being emitted.

GHGs are global pollutants, unlike criteria air pollutants and TACs, which are pollutants of regional and local concern. Whereas pollutants with localized air quality effects have relatively short atmospheric lifetimes (about one day), GHGs have long atmospheric lifetimes (one to several thousand years). GHGs persist in the atmosphere for long enough time periods to be dispersed around the globe. Although the exact lifetime of any particular GHG molecule is dependent on multiple variables and cannot be pinpointed, it is understood that more CO₂ is emitted into the atmosphere than is sequestered by ocean uptake, vegetation, or other forms. Of the total annual human-caused CO₂ emissions, approximately 55 percent is sequestered through ocean and land uptakes every year, averaged over the last 50 years, whereas the remaining 45 percent of human-caused CO₂ emissions remains stored in the atmosphere (IPCC 2013).

Table 8 - Greenhouse Gases

Greenhouse Gas	Description
CO₂	Carbon dioxide is a colorless, odorless gas. CO ₂ is emitted in a number of ways, both naturally and through human activities. The largest source of CO ₂ emissions globally is the combustion of fossil fuels such as coal, oil, and gas in power plants, automobiles, industrial facilities, and other sources. A number of specialized industrial production processes and product uses such as mineral production, metal production, and the use of petroleum-based products can also lead to CO ₂ emissions. The atmospheric lifetime of CO ₂ is variable because it is so readily exchanged in the atmosphere. ¹
CH₄	Methane is a colorless, odorless gas and is the major component of natural gas, about 87 percent by volume. It is also formed and released to the atmosphere by biological processes occurring in anaerobic environments. Methane is emitted from a variety of both human-related and natural sources. Human-related sources include fossil fuel production, animal husbandry (intestinal fermentation in livestock and manure management), rice cultivation, biomass burning, and waste management. These activities release significant quantities of CH ₄ to the atmosphere. Natural sources of CH ₄ include wetlands, gas hydrates, permafrost, termites, oceans, freshwater bodies, non-wetland soils, and other sources such as wildfires. The atmospheric lifetime of CH ₄ is about 12 years. ²
N₂O	Nitrous oxide is a clear, colorless gas with a slightly sweet odor. Nitrous oxide is produced by both natural and human-related sources. Primary human-related sources of N ₂ O are agricultural soil management, animal manure management, sewage treatment, mobile and stationary combustion of fossil fuels, adipic acid production, and nitric acid production. N ₂ O is also produced naturally from a wide variety of biological sources in soil and water, particularly microbial action in wet tropical forests. The atmospheric lifetime of N ₂ O is approximately 120 years. ³

Sources: ¹USEPA 2016a, ²USEPA 2016b, ³USEPA 2016c

The quantity of GHGs that it takes to ultimately result in climate change is not precisely known; it is sufficient to say the quantity is enormous, and no single project alone would measurably contribute to

a noticeable incremental change in the global average temperature or to global, local, or microclimates. From the standpoint of CEQA, GHG impacts to global climate change are inherently cumulative.

Sources of Greenhouse Gas Emissions

In 2021, CARB released the 2021 edition of the California GHG inventory covering calendar year 2019 emissions. In 2019, California emitted 418.2 million gross metric tons of CO₂e including from imported electricity. Combustion of fossil fuel in the transportation sector was the single largest source of California's GHG emissions in 2019, accounting for approximately 40 percent of total GHG emissions in the State. When emissions from extracting, refining and moving transportation fuels in California are included, transportation is responsible for over 50 percent of statewide emissions in 2019. Continuing the downward trend from 2018, transportation emissions decreased 3.5 million metric tons of CO₂e in 2019, only being outpaced by electricity, which reduced emissions by 4.3 million metric tons of CO₂e in 2019. Emissions from the electricity sector account for 14 percent of the inventory and have shown a substantial decrease in 2019 due to increases in renewables. California's industrial sector accounts for the second largest source of the State's GHG emissions in 2019, accounting for 21 percent (CARB 2021b).

Regulatory Framework

State

Executive Order S-3-05

Executive Order (EO) S-3-05, signed by Governor Arnold Schwarzenegger in 2005, proclaims that California is vulnerable to the impacts of climate change. It declares that increased temperatures could reduce the Sierra Nevada snowpack, further exacerbate California's air quality problems, and potentially cause a rise in sea levels. To combat those concerns, the EO established total GHG emission targets for the state. Specifically, emissions are to be reduced to the 2000 level by 2010, the 1990 level by 2020, and to 80 percent below the 1990 level by 2050.

Assembly Bill 32 Climate Change Scoping Plan and Updates

In 2006, the California legislature passed Assembly Bill (AB) 32 (Health and Safety Code § 38500 et seq., or AB 32), also known as the Global Warming Solutions Act. AB 32 required CARB to design and implement feasible and cost-effective emission limits, regulations, and other measures, such that statewide GHG emissions are reduced to 1990 levels by 2020 (representing a 25 percent reduction in emissions). Pursuant to AB 32, CARB adopted a Scoping Plan in December 2008, which outlined measures to meet the 2020 GHG reduction goals. California exceeded the target of reducing GHG emissions to 1990 levels by the year 2017.

The Scoping Plan is required by AB 32 to be updated at least every five years. The latest update, the 2017 Scoping Plan Update, addresses the 2030 target established by Senate Bill (SB) 32 as discussed

below and establishes a proposed framework of action for California to meet a 40 percent reduction in GHG emissions by 2030 compared to 1990 levels. The key programs that the Scoping Plan Update builds on include increasing the use of renewable energy in the State, the Cap-and-Trade Regulation, the Low Carbon Fuel Standard, and reduction of methane emissions from agricultural and other wastes.

Senate Bill 32 and Assembly Bill 197 of 2016

In August 2016, Governor Brown signed SB 32 and AB 197, which serve to extend California's GHG reduction programs beyond 2020. SB 32 amended the Health and Safety Code to include § 38566, which contains language to authorize CARB to achieve a statewide GHG emission reduction of at least 40 percent below 1990 levels by no later than December 31, 2030.

Senate Bill X1-2 of 2011, Senate Bill 350 of 2015, and Senate Bill 100 of 2018

In 2018, SB 100 was signed codifying a goal of 60 percent renewable procurement by 2030 and 100 percent by 2045 Renewables Portfolio Standard.

2019 Building Energy Efficiency Standards for Residential and Nonresidential Buildings

The Building and Efficiency Standards (Energy Standards) were first adopted and put into effect in 1978 and have been updated periodically in the intervening years. These standards are a unique California asset that have placed the State on the forefront of energy efficiency, sustainability, energy independence and climate change issues. The 2019 Building Energy Efficiency Standards improve upon the 2016 Energy Standards for new construction of, and additions and alterations to, residential and nonresidential buildings. The 2019 update to the Building Energy Efficiency Standards focuses on several key areas to improve the energy efficiency of newly constructed buildings and additions and alterations to existing buildings. The 2019 standards are a major step toward meeting Zero Net Energy. The most significant efficiency improvement to the residential Standards includes the introduction of photovoltaic into the perspective package, improvements for attics, walls, water heating and lighting. Buildings permitted on or after January 1, 2020, must comply with the 2019 Standards.

In 2008, the California Building Standards Commission adopted the nation's first green building standards. The California Green Building Standards Code (Part 11 of Title 24) is commonly referred to as CalGreen Building Standard (CalGreen) and establishes voluntary and mandatory standards pertaining to the planning and design of sustainable site development, energy efficiency, water conservation, material conservation, and interior air quality. Like Part 6 of Title 24, the CalGreen standards are periodically updated, with increasing energy savings and efficiencies associated with each code update. CalGreen contains voluntary "Tier 1" and "Tier 2" standards that are not mandatory statewide but could be required by a City or County. These are 'reach' standards that can be adopted by local jurisdictions and may be incorporated as mandatory standards in future code cycles.

Local

Neither CVWD, Imperial County Air Pollution Control District nor Imperial County have adopted a GHG threshold for determining significance of impacts for CEQA analyses. For purposes of this assessment, a threshold of 3,000 metric tons of CO₂e per year is used since it has been adopted by the adjacent South Coast Air Quality Management District (SCAQMD) and Riverside County.

To provide guidance to local lead agencies on determining significance for GHG emissions in CEQA documents, SCAQMD staff has convened an ongoing GHG CEQA Significance Threshold Working Group. Members of the working group include government agencies implementing CEQA and representatives from various stakeholder groups that provide input to SCAQMD staff on developing the significance thresholds. On October 8, 2008, the SCAQMD released the Draft AQMD Staff CEQA GHG Significance Thresholds. These thresholds have not been finalized and continue to be developed through the working group.

On September 28, 2010, SCAQMD Working Group Meeting #15 provided further guidance, including an interim screening level numeric "bright-line" threshold of 3,000 metric tons of CO₂e annually. The SCAQMD has not announced when staff is expecting to present a finalized version of these thresholds to the governing board.

a) No Impact. Air emissions from the project, including greenhouse gases, will occur only during construction with gasoline and diesel emissions from workers travelling to and from the site daily, and from the earthwork equipment that will be used in grading. Construction of the project would occur over approximately six to eight months. Post-construction operations of the canal and reservoir do not produce any greenhouse gas emissions. Therefore, the project has no potential to increase or reduce GHG emissions as compared to the existing environmental setting, no applicable threshold of significance applies to the project and no mitigation is required.

b) No Impact. Construction of the proposed storage reservoir has no potential to conflict with any plan, policy or regulation related to greenhouse gas emissions. The storage reservoir project will benefit CVWD with improved efficiency in its use and delivery of Colorado River water, and this efficiency improvement indirectly complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions (14 CCR 15064.4(b)). The State GHG regulations described above do not apply directly to this project since its GHG emissions are limited to those from construction related emissions, and there are no significant operational emissions for this gravity-powered water conveyance system. CVWD has adopted a *Climate Action and Adaption Plan (CAAP)*, (CVWD, September 2021) that includes an inventory of the District's GHG emissions associated with the operation and maintenance of buildings, facilities, vehicle fleet, and non-stationary equipment, as well as emissions from construction, waste streams, and employee vehicle trips commuting to and from work. The CAAP also identifies strategies to reduce GHG emissions related to the District's equipment, vehicle fleet, and energy efficiency. None of those measures are applicable to the Mid-Canal Storage Project since it is a modification of an existing CVWD facility that will not result in a significant increase in energy consumption or production of GHG emissions.

Construction-related activities that would generate GHG emissions include worker commute trips, haul trucks carrying supplies and materials to and from the Project site, and off-road construction equipment (e.g., dozers, loaders, excavators). **Table 9** illustrates the construction generated GHG emissions that would result from construction of the Project. Once construction is complete, generation of GHG emissions related to the Mid-Canal Storage Project would cease. As shown in **Table 9**, Project construction would result in the generation of approximately 1,004.2 metric tons of CO₂e over the course of construction, which is well below the 3,000 metric tons of CO₂e threshold.

Table 9 - Construction-Related Greenhouse Gas Emissions

Emissions Source	CO₂e (Metric Tons/ Year)
Construction Year One (August-December 2023)	711.1
Construction Year Two (January-March 2024)	293.1
Total Construction Emissions (6-8 months)	1,004.2
SCAQMD Significance Threshold	3,000
Exceed SCAQMD Threshold?	No

Source: CalEEMod version 2020.4.0. Refer to Model Data Outputs in Appendix E.

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

The project is not energy intensive, and the use of routine gasoline and diesel-powered earthmoving and grading equipment for construction is essential to complete the project and is not considered to be either wasteful or inefficient. For long term operations, the canal and proposed storage reservoir flow by gravity and require minor amounts of electricity to operate the Siphon 14 control gate at the downstream end of the reservoir. Therefore, the proposed water storage reservoir will have no impact related to greenhouse gas emissions and related planning and regulation.

Mitigation Measures: None required or recommended.

Issues		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
IX. Hazards And Hazardous Materials					
Would the project:					
a)	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b)	Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c)	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d)	Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e)	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f)	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g)	Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

The Code of Federal Regulations (CFR Title 40, Part 261) defines hazardous materials based on ignitability, reactivity, corrosivity, and/or toxicity properties. The State of California defines hazardous materials as substances that are toxic, ignitable or flammable, reactive and/or corrosive, which have the capacity of causing harm or a health hazard during normal exposure or an accidental release. As a result, the use and management of hazardous or potentially hazardous substances is regulated under existing federal, State and local laws.

Construction of the proposed project is expected to involve the temporary management and use of oils, fuels and other potentially flammable substances that power and lubricate construction equipment. The nature and quantities of these products would be limited to what is necessary to carry out construction of the project. Some of these materials would be transported to the site periodically by vehicle and would be stored in designated controlled areas on a short-term basis. The designated controlled areas will be temporarily located in staging areas placed close to where earthwork is occurring at that time.

a) Less than Significant Impact with Mitigation. Fuel and lubricants for the grading and earthwork construction equipment fueling and maintenance will be routinely transported to the site. The identification of building material staging areas is required by Construction General Permit (CGP) (Order No. 2009-0009-DWQ as amended by 2010-0014-DWQ and 2012-0006-DWQ) administered by the RWQCB which requires the development and implementation of a project-specific SWPPP for areas greater than one acre. Per the CGP, the project's SWPPP shall include comprehensive handling and management procedures for fuels and oils that have the potential to contaminate stormwater. Staging areas for fueling and servicing vehicles is also required to be identified in the SWPPP. When handled properly by trained individuals and consistent with the manufacturer's instructions and industry standards, the risks involved with handling these materials are reduced to a less than significant level. As a requirement of the CGP, the contractor will be required to identify all controlled staging areas within the project limits for storing hazardous materials and equipment.

To prevent a threat to surface water during construction, the management of fuels, lubricants and any other potentially hazardous materials will be regulated through the implementation of measures required in the SWPPP for the project. The SWPPP requires a list of potential pollutant sources and the identification of construction areas where additional control measures are necessary to prevent pollutants from being released on-site or off-site. Best management practices (BMPs) are required in the SWPPP for proper material delivery and storage; material use; and spill prevention and control. These temporary measures outline the required physical improvements and procedures to prevent impacts of pollutants and hazardous materials to workers and the environment during construction. For example, all construction materials, including paints, solvents, and petroleum products, must be stored in controlled areas and according to the manufacturer's specifications. The contractor will also be required to implement BMPs to assure that impacts are minimized and that any minor spills are immediately and properly remediated. **Mitigation Measure HAZ-1** requires the project contractor to develop and implement the SWPPP in compliance with the requirements of the Construction General Permit. With the implementation of the CGP and SWPPP, less than significant impacts are anticipated during construction.

HAZ-1: Construction General Permit and Stormwater Pollution Prevention Plan

The project contractor is required to comply with the most current Construction General Permit (CGP) (Order No. 2009-0009-DWQ as amended by 2010-0014-DWQ and 2012-0006-DWQ). Compliance with the CGP involves the development and implementation of a project-specific Stormwater Pollution Prevention Plan (SWPPP). The required plan will identify the locations and types of construction activities

requiring BMPs and other necessary compliance measures to prevent soil erosion and stormwater runoff pollution. A Notice of Intent (NOI) to implement a SWPPP must be submitted through the Stormwater Multiple Application and Report Tracking System (SMARTS), in which a Waste Discharge Identification (WDID) number will be issued. The SWPPP and WDID must be kept on-site and used during the life of the project.

b) No Impact. With implementation of mitigation measure HAZ-1, project construction has no foreseeable potential to significantly impact the public or the environment through reasonably foreseeable upset and accident conditions, and there are no sensitive receptors in the vicinity of the project that could be affected by accidents on site. Long-term project operations have no potential to result in upset or accidents related to hazardous materials, and no additional mitigation is required.

c) No Impact: The Project would not use acutely hazardous materials other than gasoline and diesel fuels that will be contained and dispensed in state-of-the-art tanks and pump equipment. There is no school within one-quarter mile of the site. The nearest school is located in the town of Niland approximately five miles south of the project site.

d) No Impact. The project site is located entirely within the footprint of the original earthen canal and the newer concrete lined canal and is not located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. The site is not on any EnviroStor list maintained by the Department of Toxic Substances Control, (www.calepa.ca.gov/sitecleanup/corteselist/ and www.Envirostor.dtsc.ca.gov/public/search.asp accessed March 2022). There are six sites listed in Imperial County, in the cities of El Centro, Holtville and Brawley, none of which are in or near the Coachella Canal or the proposed storage reservoir project site. and, as a result, has no potential to create a significant hazard to the public or the environment.

e) No Impact. The Project site is not located within two miles of any airport. The nearest airport to the project site is the Cliff Hatfield Memorial Airport in the town of Calipatria approximately 10 miles south of Siphon 11. Therefore, the project would not represent a safety hazard for people residing or working in the project vicinity. The project location does not have a private airport near the site, and the construction and operations of the proposed water storage project would not represent any related safety hazard for people residing or working in the area.

f) No Impact. The project site is not used for emergency response to or evacuation from adjacent areas. The proposed storage project has no potential to impair implementation of or physically interfere with any adopted emergency response plan or emergency evacuation plan by Imperial County. No related impacts would occur, and no mitigation related to hazards and hazardous materials is required.

g) No Impact. The Project site is within a desert area of Imperial County that has very low potential for wildland fires. The canal storage project would not expose people or property to any wildland fire hazards, and no mitigation is required.

Issues		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
X. Hydrology and Water Quality					
Would the project:					
a)	Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b)	Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c)	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
	i. result in substantial erosion or siltation on- or off-site;	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	ii. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or offsite;	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	iii. create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of runoff; or	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	iv. impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d)	In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e)	Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

a) Less Than Significant Impact with Mitigation. All earthwork required to create the storage reservoir will be conducted within the limits of the existing parallel canals, one at a time in sequence after they have been dewatered. Mitigation measure *HAZ-1: Construction General Permit and Stormwater Pollution Prevention Plan*, identified in the Hazards and Hazardous Material section above, includes measures prescribed to prevent soil erosion and stormwater runoff pollution resulting from construction activities. The existing canal siphons that cross under natural drainage channels will not be removed or affected

in any way that could lead to discharge into those channels. Therefore, the project has no potential to violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality.

b) No Impact. The proposed storage reservoir construction will not utilize or affect groundwater in any way and has no potential to impact groundwater supplies or to interfere with groundwater recharge. Further, there is no applicable sustainable groundwater management plan for this area of Imperial County. Although CVWD uses imported canal water for groundwater replenishment, the construction schedule of the Project will not disrupt CVWD's groundwater replenishment efforts in the Coachella Valley. Long term the project provides operational benefits that support continued groundwater replenishment activities conducted by CVWD. The Project is included in and consistent with the 2022 Indio Subbasin Water Management Plan Update-Sustainable Groundwater Management Act Alternative Plan developed in compliance with the Sustainable Groundwater Management Act of 2014.

c) i.-iv. No Impact. No existing drainages cross the canal segments to be modified to create the storage basin, and construction of the project will not add additional impervious surfaces to the project area or have any potential to produce scouring runoff that could result in erosion or siltation on adjoining lands. It would not impact the existing drainage pattern of the surrounding lands, and no stormwater runoff will be routed into the reservoir.

The existing concrete lining will not be removed, it will be moved on the east side into the bottom of the canal, and on the west side it will be buried in place with the new 2.8-foot thick clay liner. The intent of the clay liner is that it will be impervious to provide the same level of seepage prevention as the intact concrete liner without the potential to crack and fail as has occurred with the concrete liner in this canal segment.

During earthwork activities, stormwater may fall within the banks of the existing canals. Because the disturbed area is greater than one-acre coverage must be obtained under the Statewide Construction General Order (2009-0009-DWQ). The Water Board requires a SWPPP to be prepared that identifies applicable stormwater Best Management Practices (BMPs) and defines how they are to be implemented. Prior to commencing construction, a SWPPP must be prepared that identifies applicable stormwater BMPs and defines how they are to be implemented. In this case, all of the grading required will be restricted within the outer banks of the newer lined canal and the original earthen canal with no potential to produce or change off-site stormwater runoff conditions. Typical BMPs include demarcation of approved work limits, installation of temporary silt fencing, and placement of sand/gravel bags to prevent runoff outside of work limits. The BMPs will be designed so that runoff is controlled to prevent erosion during construction and during the post-construction period.

All earthwork required to create the storage reservoir will be conducted within the limits of the existing parallel canals and the existing canal siphons that cross under natural drainage channels will not be

removed or affected in any way that could create any new encroachment on flood zones or a 100-year floodplain.

d) No Impact. No aspect of the storage reservoir project would expose people or structures to a significant risk of loss, injury, or death of flooding. The project site is approximately 310 feet above the water surface of the Salton Sea and is not subject to seismic seiche that may occur on the Sea in a major seismic event. Therefore, there are no impacts associated with flooding from tsunami or seiche or related risk of pollutants being released. The property is not located within the 100-year floodplain of any local water body and there will be no potential for related flood hazard impacts.

e) No Impact. The project is required to conform with all applicable water quality protection requirements and will not conflict with or obstruct implementation of a water quality control plan during construction or operation. There is no applicable sustainable groundwater management plan adopted for this area of Imperial County. Although CVWD uses imported canal water for groundwater replenishment, the construction schedule of the project will not disrupt the CVWD's groundwater replenishment efforts in the Coachella Valley. Long term the project provides operational benefits that support continued groundwater replenishment activities conducted by CVWD. The Project is included in and consistent with the 2022 Indio Subbasin Water Management Plan Update-Sustainable Groundwater Management Act Alternative Plan developed in compliance with the Sustainable Groundwater Management Act of 2014. Therefore, no significant adverse impacts are identified or anticipated related to hydrology and water quality and no mitigation measures are required except for the preparation of the standard SWPPP for construction site management.

Mitigation Measures: Mitigation measure HAZ-1 addresses potential water quality concerns applicable to this project, and no additional measures are required or recommended.

Issues		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
XI. Land Use and Planning					
Would the project:					
a)	Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b)	Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

Federal rights-of-way for the Coachella Canal were acquired over a period of years concluding in September 1941, when “most, if not all, of the rights-of-way had been acquired.” (Source: Trover, Ellen Lloyd, *History, Development & Benefit Colorado River Supply & Irrigation System*, prepared for the Coachella Valley Water District, 2016). County General Plan and zoning land use designations were developed starting in the 1960s and do not apply to the federal ROW, over which the County has no jurisdiction.

a) No Impact. The project site is located entirely within the banks of the existing lined and earthen canals and there is no established community in the vicinity of this canal segment. The Project has no potential to divide an established community.

b) No Impact. County land use designations for surrounding lands include Recreation/Open Space, Agriculture, and Government/Special Public (for the Chocolate Mountains Gunnery Range). (Sources: Imperial County General Plan Land Use Element, Imperial County Land Use Plan Map, Zone 70, Updated March 1, 2007 (adopted November 9, 1993, Board of Supervisors Minute Order 19D); Imperial County Zone 70 Zoning Map, July 1, 1998 (last updated January 31, 2013)

Modification of the canal channels to create the three cells that will form the storage reservoir has no potential to conflict with any local or regional land use plan or to conflict with land use policies intended to avoid or mitigate adverse environmental effects. The project will be limited to modification of the existing canal segments to form a single wider canal segment that will comprise the storage reservoir and will not encroach onto any property subject to another jurisdiction’s land use plans or policies.

Therefore, no impacts are identified or anticipated related to Land Use and Planning.

Mitigation Measures: None required or recommended.

Issues		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
XII. Mineral Resources					
Would the project:					
a)	Result in the loss of availability of a known mineral resource that will be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b)	Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

A Mineral Resource is a concentration of mineral materials in or on the earth’s crust in such form and quantity and of such a grade or quality that it has reasonable prospects for economic extraction. Mineral resources are non-renewable and include metals, non-metals, and rock and sand. They constitute the vital raw materials for many basic industries and are a major resource for development.

a) & b) No Impact. The project is limited to modifications of the existing canal segments in this segment of the Coachella Canal including removal of the berm that separates the two canal channels and using the berm materials to form the bottom of the new reservoir channel. The project footprint lies entirely within the existing federal ROW footprint and has no potential to extend to other adjacent properties that may have mineral resources, and therefore has no potential to create a new impact on significant or valuable mineral deposit sites that may exist within the vicinity of the project site. Therefore, the project would have no potential to impact mineral resources.

Mitigation Measures: None required or recommended.

Issues		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
XIII. Noise					
Would the project result in:					
a)	Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b)	Generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c)	For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

Sound is mechanical energy transmitted by pressure waves through a medium such as air. Noise is defined as unwanted sound. Sound pressure level has become the most common descriptor used to characterize the “loudness” of an ambient sound level. Sound pressure level is measured in decibels (dB), with zero dB corresponding roughly to the threshold of human hearing, and 120 to 140 dB corresponding to the human threshold of pain.

Stationary point sources of noise, including construction equipment, attenuate (lessen) at a rate of 6 to 7.5 dB per doubling of distance from the source, depending on ground absorption. Physical barriers located between a noise source and the vibration are the periodic oscillation of a medium or object. Sources of ground-borne vibrations include natural phenomena (e.g., earthquakes, volcanic eruptions, sea waves, landslides) or human-made causes (e.g., explosions, machinery, traffic, construction equipment). Vibrational effects from typical construction activities are only a concern within 25 feet of existing structures (Caltrans, 2002).

The State of California establishes noise limits for vehicles licensed to operate on public roads. For heavy trucks, the State pass-by standard is consistent with the federal limit of 80 dB at a distance of 50 feet. The State pass-by standard for light trucks and passenger cars (less than 4.5 tons, gross vehicle rating) is also 80 dB at 15 meters from the vehicle centerline. These standards are implemented through

controls on vehicle manufacturers and by legal sanction of vehicle operators by state and local law enforcement officials.

Noise sensitive receptors typically include land uses associated with indoor and/or outdoor activities that may be subject to stress and/or significant interference from noise such as residential dwellings, hospitals, nursing homes, educational facilities, and libraries.

a) Less than Significant. Surrounding land uses contain no sensitive receptors and noise associated with short-term construction of the storage reservoir has no potential to create a noise impact that would violate any applicable land use plan or standards. Long-term operations do not produce any noise. CVWDs standard construction contract requirements stipulate that all grading and earthwork equipment used to construct the project will be equipped with muffler systems meeting manufacturers specifications. No additional noise reduction measures are required.

b) No Impact. Construction activities would create noise from construction equipment operation and local vibration from grading and compacting activities. However, this construction equipment would not be expected to cause groundborne vibration or groundborne noise levels, and there are no sensitive receptors in the area. No blasting or explosives will be utilized in construction. Therefore, there are no potential impacts associated with groundborne vibration or noise levels.

c) No Impact. Jacqueline Cochran Regional Airport is located in the western part of the town of Thermal, approximately 40 miles northwest of the proposed project site. The project site is not located in the vicinity of a public airport or airstrip that would result in any impacts, either on-site or off-site, and there is no potential for impacts related to these issues.

Therefore, no impacts are identified or anticipated related to noise.

Mitigation Measures: None required or recommended.

Issues		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
XIV. Population and Housing					
Would the project:					
a)	Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b)	Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

Analysis of population and housing as required by CEQA focuses on a project’s potential to cause an increase in population growth, demands for new housing, or displacement of existing populations and/or housing.

a) No Impact. The proposed development of a storage reservoir within the Coachella Canal is intended to remediate an existing maintenance problem and to provide greater operational flexibility and more efficient use of the District’s water supplies. It will not produce any additional water supply or result in new service connections that could have any direct or indirect effect of inducing population growth. The project would have no adverse impact to population and housing.

b) No Impact. No existing housing would be displaced, and no aspect of the proposed storage reservoir could result in any effects to housing.

Therefore, no impacts are identified or anticipated related to population and housing.

Mitigation Measures: None required or recommended.

	Issues	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
XV. Public Services					
a)	Would the 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, to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
	Fire Protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Police Protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Other Public Facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

Assessment of public services is intended to identify whether a proposed action has any potential adverse impacts associated with the provision of new or altered governmental facilities, effects on maintaining governmental facilities, and/or additional demands for public services.

Fire Protection. No Impact. There are no potential *“physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities”* resulting from the proposed storage reservoir that could affect fire protection services. The project site is not in close proximity to a County or City fire department. The nearest fire station is the County Fire Department in Niland approximately five miles to the southwest.

Police Protection. No Impact. There are no potential *“physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities”* resulting from the proposed storage reservoir that could affect police protection services. The property is not in close proximity to a County or City sheriffs or police department. The California Highway Patrol (CHP) does patrol Highway 86, and together with the U.S. Customs and Border Protection Agency (Border Patrol), staffs a nearby border check station on Highway 86 near the community of Wister, CA, and occasionally utilizes the canal service road. The project will not place any regular or unusual demand on police services, and no mitigation measures are required.

Schools, Parks, or Other Public Facilities. No Impact. There is no aspect of the storage reservoir project that could have any potential to have a direct physical impact on any school, park, library, or other public facility. The Project does not include a residential component and therefore would not result in a direct population increase or direct or indirect effect on such facilities or services. There are no schools, parks, or other public facilities in the vicinity that could be affected by construction or long-term operations of the project.

Mitigation Measures: None required or recommended.

	Issues	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
XVI. Recreation					
a)	Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility will occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b)	Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

The assessment of the project’s potential to adversely affect recreational facilities or create a demand for new facilities potential air quality effects of the project was performed based upon a complete site reconnaissance and understanding of the proposed project location, including short-term effects of construction activities and potential long-term effects of canal and reservoir operations.

a) & b) No Impact. The Coachella Canal is not a recreational facility, and development of the storage reservoir will be done completely within the existing fence lines intended to prevent access to the canal. The storage project would not require the expansion of any existing recreational facilities or the construction of new recreational facilities. Therefore, no impacts are identified or anticipated related to recreational facilities.

Mitigation Measures: None required or recommended.

Issues		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
XVII. Transportation					
Would the project:					
a)	Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b)	Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3 subdivision (b)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c)	Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d)	Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

The assessment of transportation issues related to this project was performed based upon a complete site reconnaissance and consultation with the project’s engineering team to understand the types and volumes of traffic that would be generated by the project. For this project, traffic will be generated during construction only to transport equipment and workers to and from the project site. Construction is expected to be completed in a 6 to 8 month period. Traffic for CVWD maintenance staff for long-term canal and reservoir operations is a baseline condition that will not change with the development of the storage reservoir.

a) No Impact. The project will generate traffic only for construction, and the project’s remote location relative to the City of Niland or regional transportation systems precludes potential interference with any transport activity. This location precludes impacts to the regional circulation system, or to any transit, roadway, bicycle, or pedestrian facilities. Traffic will include equipment delivery for mobilization and demobilization, and daily trips by up to 18 construction workers for the 6-to-8-month duration to complete work. No traffic is generated as a result of reservoir operations.

Numbers of workers and the time required for construction of the project includes the following:

- Step 1 clear and grub – 10 workers for 16 days
- Step 1 earthwork – 18 workers for 28 days
- Diversions – 7 workers for 5 days
- Step 2 earthwork – 18 workers for 38 days
- Slope protection – 10 workers for 16 days
- Concrete – 4 workers for 10 days

Workers and construction equipment will access the site via Highway 111 (paved), approximately one mile east on Beal Road (paved) along the perimeter of the City of Niland, and north on Cuff Road / Gasline Road (unpaved) approximately three miles north to Coachella Canal Road (unpaved) that parallels the canal. Alternatively, the canal can be accessed from Highway 111 approximately five miles north of Niland traveling east on Winslow Road (unpaved) to north on Old Niland Road (unpaved) approximately six miles north to Coachella Canal Road.

b) No Impact. CEQA Guidelines section 15064.3, subdivision (b)(1) pertains to criteria for analyzing transportation projects for land use projects. CEQA Guidelines Section 15064.3, subdivision (b) stipulates criteria for analyzing transportation impacts in terms of "vehicle miles traveled" (VMT) for land use projects and transportation projects. VMT refers to the amount and distance of automobile travel attributable to a project. The Governor's Office of Planning and Research (OPR) technical advisory on transportation impacts states that "*projects that generate or attract fewer than 110 trips per day generally maybe assumed to cause a less than significant transportation impact.*" VMT assessment does not apply to trucks, for which alternative transportation methods are generally not available. The proposed Mid-Canal Storage project is not a land use or transportation project for purposes of VMT assessment which is primarily focused on residential, office and retail land uses, and transit and active transportation projects. In any case, with a maximum of 18 workers at any time during construction, construction related traffic will be below the 110 trips per day threshold defined by OPR.

c) No Impact. There are no features of the project that would have any potential to create traffic hazards, or conflict with any existing traffic flows.

d) No Impact. There are no features of the project that would have any potential to interfere with emergency access. The two roads that parallel the canal segments – Gasline Road to the east and Coachella Canal Road to the west – are both outside of the canal fence lines and will not be restricted for emergency vehicle access in any way.

Mitigation Measures: None required or recommended.

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

Discussion:

The 2022 CEQA Statute, section 21074 defines “Tribal cultural resources” as follows:

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

- (c) A historical resource described in Section 21084.1, a unique archaeological resource as defined in subdivision (g) of Section 21083.2, or a “nonunique archaeological resource” as defined in subdivision (h) of Section 21083.2 may also be a tribal cultural resource if it conforms with the criteria of subdivision (a).

Evaluation of potential Tribal cultural resources in and around the Mid-Canal Storage project site was conducted by archaeologists and an accompanying member of the local Aqua Caliente Cahuilla Indians by HELIX as reported in the Cultural Resources report presented in Appendix C.

a) i. No Impact. The Coachella Canal is considered to be an eligible historic resource, however, is not a site, feature, place, or cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe.

a) ii. Less than Significant with Mitigation Incorporated. CVWD’s CEQA process includes a requirement pursuant to AB 52 to conduct consultation with Native American Tribes that have requested to be notified by CVWD of proposed Projects that have potential to affect culturally sensitive tribal resources. CVWD maintains a list of all the Native American Tribes and Tribal contacts that have requested to be notified and that have requested consultation pursuant to Public Resources Code section 21080.3.1. CVWD sent Tribal notification letters on March 16, 2022, with a request that Tribes respond within 30 days if they want to engage in formal consultation. One response was received from the Aqua Caliente Band of Cahuilla Indians requesting formal consultation with CVWD. No other responses were received. Consultation was completed concurrent with public review of the draft IS/MND.

Grading and earthwork to construct the storage reservoir is not expected to cause a substantial adverse impact on Tribal resources, however, it is possible that unforeseen artifacts could become uncovered during construction activities in undisturbed soils. In that event, CVWD and its contractors would be required to adhere to all County and State of California procedures, including CEQA Guidelines §15064.5, regarding stoppage of work, handling of uncovered resources, and notification of proper authorities to ensure that the project would not have an adverse effect on such resources.

Mitigation measure CUL-2 included in the discussion of cultural resources above requires that an archaeological monitoring program should be conducted during project development, including the presence of archaeological monitors during initial ground-disturbing activities on site. The archaeological monitors would have the authority to temporarily halt or redirect grading and other ground-disturbing activity in the event that potential tribal cultural resources are encountered. If avoidance of a prehistoric tribal resources site found during construction is infeasible, the resources should be left in-situ, or reburied in a nearby area, after consultation with the Native American Heritage Commission (NAHC) and Tribes that have requested to be on CVWD’s list. The Tribes should be contacted within 48 hours if any human remains or objects subject to provision of the Native American Graves Protection and Repatriation Act, or cultural resources such as sites, trails, or artifacts.

The Project site does not lie near any known cemeteries, and none were encountered during construction and grading for either the original earthen canal or subsequent concrete lined canal. Therefore, the potential for finding human remains on the site is highly unlikely. In the unlikely event that human remains are exposed during construction, California Health and Safety Code section 7050.5 states that no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to Public Resources Code section 5097.98. If the human remains are determined to be Native American, the Coroner will notify the Native American Heritage Commission (NAHC) and all tribal organizations that have requested to be on the County's list will be consulted to determine and notify a Most Likely Descendent (MLD). The MLD shall complete the inspection of the site within 48 hours of notification and may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials. In addition, if at any time any human remains are discovered, the District and contractor are required to notify the Imperial County Planning and Development Department of the discovery in writing within 24 hours. Compliance with State Code section 7050.5 would ensure that impacts would be below a level of significance. These requirements are included as a mitigation measure (CUL-3) in the cultural resources section above.

CVWD formally initiated AB 52 consultation for this IS/MND for determination of significance of impacts to tribal cultural resources with the Agua Caliente Band of Cahuilla Indians (ACBCI). Consultation included ABBCI review of the draft IS/MND and the Cultural Resources technical assessment that was completed for the project, and that included assessment of Tribal cultural resources. To conclude the consultation, the Tribe responded in a letter dated January 25, 2023 to the CVWD that their concerns have been addressed, proposed mitigation measures were adequate to ensure the protection of tribal cultural resources, and AB 52 consultation efforts for this project were complete.

Mitigation Measures: Mitigation measures CUL-1 through CUL-3 address potential Tribal Cultural Resources concerns applicable to this project, and no additional measures are required or recommended.

Issues		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
XIX. Utilities and Service Systems					
Would the project:					
a)	Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b)	Have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry and multiple dry years?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c)	Result in a determination by the wastewater treatment provider which serves or may serve the Project that it has adequate capacity to serve the Project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d)	Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e)	Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion:

a) Less Than Significant Impact. The project does not require relocation of any existing utilities that could cause significant environmental effects. There is a natural gas line associated with Gasline Road, but it does not provide any service to the canal system, and there are no proposed uses for the Mid-Canal Storage Project that would rely upon natural gas. The IID electrical line that will be extended 3.10 miles to Check 14 to provide electrical power for the check gate and SCADA system is a relatively low-voltage line (12 kV) that will be extended along the existing canal road ROW either from Check 11 to the south, or from the vicinity of Check 17 to the north. Therefore, the Project has no potential to result in significant adverse effects related to these utilities and service systems.

b)-e) No Impact. The project is a water storage reservoir within an existing water conveyance system and will not place any demands on water supplies. The project will not result in any wastewater disposal

and will not place any demands on a local or regional wastewater treatment provider. The project does not include any aspects that would result in the generation of solid waste, or impede any recycling and waste reduction goals, and would not result in affecting the capacity of any local or regional waste management facilities. There are no federal, State, or local regulations related to solid waste that are applicable to the project.

Therefore, no significant adverse impacts related to utilities and service systems are identified or anticipated.

Mitigation Measures: None required or recommended.

Issues		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
XX. Wildfire					
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:					
a)	Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b)	Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from wildfire or the uncontrolled spread of a wildfire?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c)	Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water resources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d)	Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

Wildfire was added as a separate topic in the CEQA Guidelines in 2019 requiring projects to be evaluated for their potential to cause, increase the severity of, or affect emergency access to areas that may be prone to wildfire hazards.

a) No Impact. The storage reservoir project has no potential to impede implementation of an emergency response or evacuation plan and is located along the existing Coachella Canal with parallel roads on both east and west sides providing ready evacuation from the project site if an emergency were to occur on or nearby the property.

b) No Impact. The project site is within a desert area of Imperial County that has very low potential for wildland fires. The project would not expose people or property to wildland fire hazards. Construction earthwork activities within the canal channels will not encounter flammable vegetation, and the potential for a construction equipment ignited fire is negligible.

c) Less Than Significant Impact. The project site is within a desert area of Imperial County that has very low potential wildland fires. No roads, fuel breaks, or emergency water sources, or other utilities will be

created as a result of the project that could exacerbate wildland fire related risk. The IID electrical powerline will be a small low-voltage state-of-the-art power conveyance pole line adjacent to existing roads in desert landscape that is not prone to wildfires.

d) No Impact. The project site is within a desert area of Imperial County that has very low potential wildland fires. The canal and storage reservoir project site is essentially level and has no active drainage channels that could result in downslope or downstream effects. Fire related risks are concluded to be less than significant.

Therefore, no impacts are identified or anticipated related to wildfire.

Mitigation Measures: None required or recommended.

Issues	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact	
XXI. Mandatory Findings of Significance:					
a)	Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b)	Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c)	Does the project have environmental effects, which would cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Discussion:

This section summarizes the findings and conclusions of the individual resource topics discussed in the checklist items above. Specifically, this section addresses the broader question concerning whether impacts may be cumulatively significant, or if there would be direct or indirect effects that have not been considered above in the checklist items. All potential impacts have been thoroughly evaluated and have either been deemed to be neither individually significant nor cumulatively considerable in terms of any adverse effects upon the project site, surrounding local area, or the region, or mitigation measures have been added to avoid or minimize those potential effects. At a minimum, the project will be required to implement the mitigation measures and other design features that are conditions of approval intended to ensure that no potential for adverse impacts will be introduced by construction activities, or long-term operations authorized by the project approval.

a) Less Than Significant with Mitigation. The site has been disturbed for decades by construction of the parallel canals. The project site does contain habitat for fish and wildlife species. Considering the range of species impacted by the project and project potential impacts without mitigation, the potential impacts of the project are not severe enough substantially reduce the habitat of a fish or wildlife species,

cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal. Mitigation measures BIO-1 and BIO-2 are included to prevent or minimize potential impacts to biological resources from the project. Existing wildlife drinkers will be maintained on the west side of the canal. The existing wildlife drinkers on the east side of the canal will be replaced with direct access to reservoir waters, and with safety fencing to prevent animals from getting into the reservoir.

Subsequent long-term operations of the canal and storage reservoir will not cause any fish or wildlife population to drop below self-sustaining levels, or to eliminate a plant or animal community. As explained in detail in the Biological Resources section above, the project has no potential to reduce the number or restrict the range of a rare or endangered plant or animal since none of the special-status plant species known to occur in the region have the potential to occur on the project site, primarily due to very poor habitat conditions for plant species with the presence of the canal channels, berms and service roads.

The site does not contain any structures or other features that would be considered important examples of the major periods of California history or prehistory, except for a section of the Coachella Canal, which will be preserved and protected by the project.

b) Less Than Significant with Mitigation. The CEQA Guidelines section 15130 define a cumulative impact as an impact which is created because of the combination of the project evaluated together with other projects causing related impacts. No related projects within CVWD or along or near the project site were identified that would contribute to potential environmental effects of combining the two existing canal channels into a single wider channel, producing a cumulative considerable effect. Modification of the canal segment to join the two canal prisms and create the Mid-Canal Storage reservoir would not contribute to any cumulative impacts on the environment and will produce net benefits of improved water conveyance and efficient water use. No adverse cumulative effects are identified or foreseeable at this time. Mitigation measures have been identified for protection of air quality, biological and cultural resources, water quality and worker safety related to hazardous materials and Tribal cultural resources intended to minimize impacts of the proposed project and prevent contributions to cumulative adverse effects.

c) Less Than Significant with Mitigation. Information contained in this Initial Study supports the conclusion that the Mid-Canal Storage Project would not have significant adverse environmental effects, including social or economic, that would cause substantial adverse effects on human beings either directly or indirectly. No negative social effects would be expected from implementation of the project, which has the potential to enhance the conveyance and delivery of water to agricultural users in the Coachella Valley. Mitigation measures for air quality and hazardous materials are intended to prevent or minimize adverse effects that could have direct or indirect effects on human beings.

Therefore, no additional significant adverse direct or cumulative impacts are identified or anticipated beyond those identified for individual resources topics addressed herein, and no additional mitigation measures are required.

CHAPTER 4 - REFERENCES

Section 15150 of the CEQA Guidelines permits an environmental document to incorporate by reference other documents that provide relevant data. The documents listed below are hereby incorporated by reference. The pertinent material is summarized throughout this Initial Study where that information is relevant to the analysis of impacts of the project. The following general and project specific references were used in the preparation of this Initial Study. Additional references for supporting technical reports are included in each of the technical appendices and are not duplicated in this list.

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CVWD, Local Guidelines for Implementing the California Environmental Quality Act, 2021

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Dahl Consultants, Inc., Coachella Valley Water District, Feasibility Study to Investigate Storage Requirements for the Coachella Canal, July 2015

Dahl Consultants, Inc., Draft Technical Memorandum No. 1, Coachella Valley Water District (CVWD) Mid- Canal Storage Project Seepage Control Methodology for Conversions of Pools 11, 12, and 13 to an In-Line Canal Reservoir, July 7, 2021

Department of Conservation, California Geological Survey, (fault line mapping for the Wister area in proximity to the Mid-Canal Storage Reservoir project site) (<https://maps.conservation.ca.gov/cgs/fam>, search Wister, CA, 2022).

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SCAQMD, 2003 Air Quality Management Plan, 2003

SCAQMD, CEQA Air Quality Handbook, 1993

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SCAQMD, Final Localized Significance Threshold Methodology (dated June 2003 [revised 2008]), 2008

SCAQMD, Localized Significance Threshold Appendix C – Mass Rate LST Look-Up Tables. Revised October 21, 2009. <http://www.aqmd.gov/ceqa/handbook/LST/LST.html>, 2009

SWCA Environmental Consultants, DRAFT Paleontological Resources Technical Report for the 2020–2045 Regional Transportation Plan and Sustainable Communities Strategy for the Southern California Association of Governments, October 2019

Trover, Ellen Lloyd, History, Development & Benefit Colorado River Supply & Irrigation System, prepared for the Coachella Valley Water District, 2016

U.S. Department of the Interior, Bureau of Reclamation and Coachella Valley Water District, Coachella Canal Lining Project, Final Environmental Impact Statement/Environmental Impact Report, April 2001

U.S. Department of the Interior, Bureau of Reclamation, Record of Decision for the Coachella Canal Lining Project, 2002;
(See: <http://www.riversimulator.org/Resources/LawOfTheRiver/HooverDamDocs/Supplements/2002RecordOfDecisionCoachellaCanalLiningProject.pdf>).

CHAPTER 5 - LIST OF PREPARERS

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- Wayne Dahl, P.E, PLS, Project Manager
- John Dahl, Construction Manager
- Susan Fox, P.E, Project Engineer

Landmark Consultants, Inc.

- Greg Chandra, P.E., M.ASCE

HELIX Environmental Planners, Inc.

- Karl Osmundson, Principal Biologist / Biology Group Manager
- Amy Mattson, Senior Biologist
- Mary Robbins-Wade, RPA, Principal Archaeologist
- Catherine Wright, Cultural Resource Specialist
- Teri Delcamp, Architectural Historian
- Trevor Gittelhough, Senior Archaeologist
- Theodore G. Cooley, Senior Archaeologist
- Camille Lill, Senior GIS Specialist

CHAPTER 6 - COMMENTS ON THE DRAFT IS/MND AND RESPONSES

This chapter presents comments submitted during the public review period for the Draft IS/MND, and responses to those comments. Comments contained in the letters are reproduced here, with each comment followed by CVWD's response.

A total of four comment letters were submitted. These include:

1. California Department of Fish and Wildlife ("CDFW") – **CDFW** for purposes of numbering comments and responses.
2. California Department of Water Resources, Division of Safety of Dams ("DSOD") – **DSOD** for purposes of numbering comments and responses.
3. California Department of Transportation ("Caltrans") – **CT** for purposes of numbering comments and responses.
4. Imperial Irrigation District ("IID") – **IID** for purposes of numbering comments and responses.

The original comment letters are presented in Appendix G to this Final IS/MND. Within each comment letter, separate comments are bracketed and labeled with a number in the margin that corresponds to the comment and response to comment numbering used in this chapter.

California Department of Fish and Wildlife ("CDFW") – CDFW

Letter Dated January 23, 2023 (14 pages)

Comment CDFW-1 General Comment

The MND has not adequately identified and disclosed the Project's impacts (i.e., direct, indirect, and cumulative) on biological resources and whether those impacts are less than significant.

Response to Comment CDFW-1

As explained in more detail in responses to specific CDFW comments below, this comment is not supported by facts and appears to be based upon 1) an assumption that construction work will encroach into jurisdictional waters and associated habitat areas that in fact are completely and intentionally avoided by the project, 2) an assumption that the presence of burrowing owls in agricultural fields within 3 to 5 miles of the project site indicates that the project site provides high quality habitat for this species, and 3) an assumption that project construction will utilize artificial nighttime lighting which is not a part of the proposed action.

Comment CDFW-2 Project Description

Without a complete and accurate project description, the MND likely provides an incomplete assessment of Project-related impacts to biological resources. CDFW has identified gaps in information

related to the project description. CDFW is concerned that the MND does not accurately describe the Project's potential impacts to streams subject to Fish and Game Code section 1600 et seq. The MND also lacks a description of artificial nighttime lighting that may be used during construction and an analysis of the potential impacts of artificial nighttime lighting on biological resources. Compliance with CEQA is also predicated on a complete and accurate description of the environmental setting that may be affected by the proposed Project. CDFW is concerned that the MND has not adequately assessed potential impacts to burrowing owls. CDFW also recommends strengthening the measure to protect nesting birds to avoid or reduce significant impacts to below a level of significance.

Response to Comment CDFW-2

See response to comment 1 above. The project footprint is completely within the existing federal right-of-way for the existing parallel canals and does not encroach on any natural stream area subject to Fish and Game Code section 1600 et seq. No nighttime construction work is proposed and use of artificial nighttime lighting is therefore not included in the Project Description. The impact analysis includes a detailed assessment of burrowing owls, and although results were negative, as requested by CDFW, Burrowing Owl has been specifically added to mitigation measure BIO-1 in section 3.1 IV of the IS/MND with other requested modifications to the mitigation measure for nesting birds as shown below in response to comment CDFW-6. with other requested modifications to the mitigation measure for nesting birds.

Comment CDFW-3 Impacts to Streams

1) Impacts to Streams

Page 16 of the Biological Resources Report dated August 2, 2022 (Appendix B of the MND) indicates that "no natural streambed or riparian habitat that would meet the definitions presented in CFG Code Sections 1600 et seq. is present, and the project would not be expected to adversely affect fish and wildlife resources with implementation of BMPs and other avoidance and minimization measures". Page 11 of the Biological Resource Report dated August 2, 2022, indicates that the "Coachella Canal is a concrete-lined channel created specifically for the delivery and storage of water. No natural streambed or riparian habitat occurs that would meet the definitions presented in CFG Code Sections 1600 et seq. With the implementation of standard BMPs and other avoidance and minimization measures incorporated into the Project, the proposed activities within the concrete-lined Coachella Canal would not be expected to adversely affect fish and wildlife resources or trigger the requirement for Notification of Lake or Streambed Alteration pursuant to CFG Code Sections 1600 et seq."

Fish and Game Code section 1600 et seq. does not define "natural streambed or riparian habitat" but rather defines the activities for which an entity must notify CDFW if any river, stream, or lake may be affected. The Coachella Canal and the four ephemeral washes that cross through the gaps along the Project's 4.9-mile alignment are streams subject to notification under Fish and Game Code section 1602.

The MND proposes structural modifications to the Coachella Canal including, but not limited to, the removal of concrete and embankments, creation of a stream bank using compacted clay, and water diversions. These activities will result in substantial change to, and use of materials from, the bed, channel, and bank of the Coachella Canal. Fish and Game Code section 1602 requires an entity to notify CDFW prior to commencing any activity that may do one or more of the following: substantially divert or obstruct the natural flow of any river, stream, or lake; substantially change or use any material from the bed, channel, or bank of any river, stream, or lake; or deposit debris, waste, or other materials that could pass into any river, stream, or lake. CDFW recommends that the Coachella Valley Water District notify CDFW per Fish and Game Code Section 1602. Upon receipt of a complete notification, CDFW determines if the proposed Project activities may substantially adversely affect existing fish and wildlife resources and whether a Lake and Streambed Alteration (LSA) Agreement is required.

CDFW recommends that Coachella Valley Water District include in a revised MND the following mitigation measure:

MM BIO-[A]: CDFW Lake and Streambed Alteration Program

Prior to construction and issuance of any grading permit, the Project Sponsor shall obtain written correspondence from the California Department of Fish and Wildlife (CDFW) stating that notification under section 1602 of the Fish and Game Code is not required for the Project, or the Project Sponsor should obtain a CDFW-executed Lake and Streambed Alteration Agreement, authorizing impacts to Fish and Game Code section 1602 resources associated with the Project.

Response to Comment CDFW-3

CVWD agrees that the four ephemeral washes that cross through the gaps along the Project's 4.9-mile alignment are streams subject to notification under Fish and Game Code section 1602. The Coachella Canal is not within the State's jurisdiction. The term "natural streambed" in Fish and Game Code section 1600 et seq. may not be precisely defined, but obviously refers to a naturally occurring hydrologic feature and not to a completely human-made artificial water conveyance facility existing entirely in uplands.

The Coachella Canal is a federally owned water conveyance system. It is a closed-system facility subject to ongoing operations and maintenance by the CVWD and managed exclusively for water supply purposes. In this way, the canal does not receive, store, or convey natural flows. The CVWD has the operating ability to control the artificially sourced water supply flows moving through the facility system, such that they can be turned off and otherwise modified in accordance with system operations. Furthermore, the canal was constructed wholly within uplands and has no underlying natural stream channel features except in those locations where siphons have been constructed perpendicular to and beneath the multiple natural ephemeral dry-wash stream channels. Siphons constructed for the Coachella Canal Lining Project completed in 2006 were built subject to terms of a CDFW-executed Lake

and Streambed Alteration Agreement. CDFW was aware of the full CCLP project construction details at the time the jurisdictional determination was made, including the Coachella Canal. Since that time no changes to the CDFG Code or federal law defining jurisdiction have taken place. Last, the Coachella Canal is a previously permitted, serviceable, and maintained federal facility for the sole purpose of artificial water conveyance. The project reach of the canal does not support any riparian habitat or other attributes of a natural river, stream, or lake that function or are intended to function for the benefit of fish and wildlife resources.

All of the proposed modifications required to construct the Mid-Canal Storage Project will occur within the existing, non-jurisdictional parallel canal segments and will not have any potential to divert or obstruct the natural flow of any river, stream, or lake; substantially change or use any material from the bed, channel, or bank of any river, stream, or lake; or deposit debris, waste, or other materials that could pass into any river, stream, or lake." CVWD concludes that there are no proposed actions subject to Fish and Game Code section 1600 et seq., and therefore no trigger for a requirement to notify CDFW per Fish and Game Code Section 1602, and the suggested mitigation measure is not applicable.

Comment CDFW-4 Siphon Modifications

Additionally, regarding impacts to streams, page 28 of the MND indicates that modifications to siphons 12 and 13 and Check 14 will be required to accommodate the higher water levels and raised inverts. Section 2.5.2 of the MND indicates that no changes will be made to the existing siphon tunnels or the overlaying desert wash channels. The MND contains limited details on how modifications to the four siphon locations-the areas where the four ephemeral streams cross through the Project alignment-will be made without causing temporary or permanent impacts to the overlaying streams. CDFW requests that the MND is revised to include additional details on siphon modifications and how impacts to streams will be avoided. These four ephemeral streams that cross the Project alignment range from approximately 160 to 300 feet in width are currently confined by permanent infrastructure associated with the Coachella Canal's check structures. These four ephemeral streams convey all the storm flows, from approximately 4.9 miles of the coalescing alluvial fans descending from the Chocolate Mountains to the east of the Project, across the alignment of the Coachella Canal and on towards the Salton Sea. These ephemeral streams carry out important ecological processes such as the transport of sediment, nutrients, native seeds, and organic matter. Further, because wildlife movement across the Coachella Canal and within the extent of the Project is limited to these four confined streams, the streams are particularly important for wildlife movement for mammals such as coyotes (*Canis latrans*) and desert kit fox (*Vulpes macrotis arsipus*), reptiles such as flat-tailed horned lizard (*Phrynosoma mauli*), and other wildlife. If the Project anticipates any permanent or temporary impacts to these four ephemeral streams, including but not limited to the modification of the width of these streams, CDFW recommends that analysis of these stream impacts are included in a revised MND and in a notification to CDFW per Fish and Game Code section 1602.

Response to Comment CDFW-4

Modifications to the siphon transition structures – inlets and outlets and surrounding walls – will occur entirely within the existing canal system and outside of the four ephemeral streams crossing the underlying siphon tunnels through the Project alignment. These improvements have no potential to alter the existing dry wash stream channels or to cause any temporary or permanent impacts to the streams. Text regarding the siphon transition structure modifications has been revised as shown below to clarify that the siphon modifications include only the siphon transition structures (inlets, outlets and surrounding walls) and not to the entirety of the siphons. This text has been added to Section 2.5.2 of the Project Description in this Final IS/MND.

Previous Text from Draft IS/MND:

2.5.2 Siphons

~~The newer siphons constructed as a part of the CCLP project (11, 12, & 13) will continue to be used to convey flow through the reservoir, with siphons 12 and 13 dividing the reservoir into three cells. Concrete sills (1-foot-high) will be constructed at the siphon inlet structures to accommodate the raising of the canal invert. Rock armoring will also be added to the siphon inlets and outlets. No changes will be made to the existing siphon tunnels or the overlying desert wash channels.~~

New Text for Final IS/MND:

2.5.2 Siphon Transition Structures

The siphons constructed as a part of the CCLP project (11, 12, & 13) will continue to be used to convey flow through the reservoir cells, with siphons 12 and 13 dividing the reservoir into three cells. No changes will be made to the existing siphon tunnels or the overlying desert wash channels. Rock armoring will be added at the siphon inlets. The siphon transition structure walls will be raised 1 to 3 feet to create freeboard above maximum capacity pool levels within the reservoir with no effects on the underlying tunnels. All work to complete these siphon inlet and outlet modifications will occur entirely within the existing parallel canal boundaries. No excavation is required that could affect the siphon tunnels, or the existing desert wash channels.

Comment CDFW-5 Burrowing Owls

2) Burrowing Owls

Burrowing owl is a California Species of Special Concern. Take of individual burrowing owls and their nests is defined by Fish and Game Code section 86, and prohibited by sections 3503, 503.5, and 3513. Fish and Game Code section 3513 makes it unlawful to take or possess any migratory nongame bird except as provided by rules and regulations adopted by the Secretary of the Interior under provisions of the Migratory Bird Treaty Act of 1918, as amended (16 U.S.C. § 703 et seq.). Take is defined in Fish

and Game Code section 86 as "hunt, pursue, catch, capture or kill, or attempt to hunt, pursue, catch, capture or kill."

Attachment J of the MND (Special Status Animal Species with Potential to Occur) indicates that burrowing owls (*Athene cunicularia*) are not likely to occur on-site, that suitable habitat is not present in the Project site, and that the Project site appears to be outside of the species' range. CDFW is concerned with the validity of these conclusions regarding the potential for burrowing owls to occupy the Project area. California Natural Diversity Database (CNDDDB) includes one observation of burrowing owl within three miles of the Project site and three additional observations of burrowing owls within five miles of the Project site. Further, deserts are naturally occurring habitat types used by burrowing owls as described in the Staff Report on Burrowing Owl Mitigation (CDFG 20122), and predicted habitat for burrowing owl occurs throughout the deserts in Imperial County.³ Importantly, the Project area largely comprises levees, berms, dikes, and channels, which are features that are known to support burrowing owls. CDFW is concerned that the MND does not appropriately assess the potential of the Project site to provide suitable foraging and/or nesting habitat for burrowing owl. Given the Project location and its minimal vegetation cover and site features including levees, berms, dikes, and channels, the Project site likely supports burrowing owl nesting and foraging habitat.

Page 4 of the Biological Resources Report for the Mid-Coachella Canal Storage Project, dated August 2, 2022, indicates that a general biological survey was conducted for the Project by one individual over a single site visit on January 6, 2022, to cover the extent of the 4.9-mile Project. CDFW is concerned that the general biological survey completed for the Project is not inadequate [Sic] to assess the potential for burrowing owls to occur on-site. CDFW recommends that the Coachella Valley Water District follow the recommendations and guidelines provided in the Staff Report on Burrowing Owl Mitigation (CDFG 2012). The Staff Report on Burrowing Owl Mitigation, specifies three steps for project impact evaluations:

- A habitat assessment;
- Surveys; and
- An impact assessment.

As stated in the *Staff Report on Burrowing Owl Mitigation*, the three progressive steps are effective in evaluating whether a project will result in impacts to burrowing owls, and the information gained from the steps will inform any subsequent avoidance, minimization, and mitigation measures. Habitat assessments are conducted to evaluate the likelihood that a site supports burrowing owl. Burrowing owl surveys provide information needed to determine the potential effects of proposed projects and activities on burrowing owls, and to avoid take in accordance with Fish and Game Code sections 86, 3503, and 3503.5. Impact assessments evaluate the extent to which burrowing owls and their habitat may be impacted, directly or indirectly, on and within a reasonable distance of a proposed CEQA project activity or non-CEQA project.

CDFW recommends that the MND is revised to include the findings of a burrowing owl habitat assessment, focused surveys, and an impact assessment as described above and in the Staff Report on Burrowing Owl Mitigation. If occupied burrows are located within or near the Project site, avoidance, minimization, and mitigation measures should be identified in the MND to support the Project applicant in avoiding the unlawful take of burrowing owls and their nests and eggs.

If the Coachella Valley Water District does not include in a revised MND the findings of a burrowing owl habitat assessment, focused surveys, and an impact assessment as described above, CDFW recommends that the following mitigation measure is added to a revised MND:

Mitigation Measure BIO-[B]: Burrowing Owls

No less than 60 days prior to the start of Project-related activities, a burrowing owl habitat assessment shall be conducted by a qualified biologist according to the specifications of the Staff Report on Burrowing Owl Mitigation (California Department of Fish and Game, March 2012 or most recent version).

If the habitat assessment demonstrates suitable burrowing owl habitat, then focused burrowing owl surveys shall be conducted by a qualified biologist according to the Staff Report on Burrowing Owl Mitigation. If burrowing owls are detected during the focused surveys, the qualified biologist and Project Applicant shall prepare a Burrowing Owl Plan that shall be submitted to CDFW for review and approval prior to commencing Project activities. The Burrowing Owl Plan shall describe proposed avoidance, monitoring, relocation, minimization, and mitigation actions. The Burrowing Owl Plan shall include the number and location of occupied burrow sites, acres of burrowing owl habitat that will be impacted, details of site monitoring, and details on proposed buffers and other avoidance measures if avoidance is proposed. If impacts to occupied burrowing owl habitat or burrow cannot be avoided, the Burrowing Owl Plan shall also describe the minimization and compensatory mitigation actions that will be implemented. Proposed implementation of burrow exclusion and closure should only be considered as a last resort, after all other options have been evaluated as exclusion is not in itself an avoidance, minimization, or mitigation method and has the possibility to result in take. The Burrowing Owl Plan shall identify compensatory mitigation for the temporary or permanent loss of occupied burrow(s) and habitat consistent with the "Mitigation Impacts" section of the 2012 Staff Report and shall implement CDFW-approved mitigation prior to initiation of Project activities. If impacts to occupied burrows cannot be avoided, information shall be provided regarding adjacent or nearby suitable habitat available to owls along with proposed relocation actions. If no suitable habitat is available nearby, details regarding the creation and funding of artificial burrows (numbers, location, and type of burrows) and management activities for relocated owls shall also be included in the Burrowing Owl Plan. The Permittee shall implement the Burrowing Owl Plan following CDFW review and approval.

Preconstruction burrowing owl surveys shall be conducted no less than 14 days prior to the start of Project-related activities and within 24 hours prior to ground disturbance, in accordance with the Staff Report on Burrowing Owl Mitigation (2012 or most recent version). Preconstruction surveys should be performed by a qualified biologist following the recommendations and guidelines provided in the Staff Report on Burrowing Owl Mitigation. If the preconstruction surveys confirm occupied burrowing owl habitat, Project activities shall be immediately halted. The qualified biologist shall coordinate with CDFW and USFWS to conduct an impact assessment to develop avoidance, minimization, and mitigation measures to be approved by CDFW prior to commencing Project activities.

Response to Comment CDFW-5

CDFW is concerned with the validity of the conclusions made regarding the potential for burrowing owls to occupy the Project area, including the concern that the general biological survey completed for the Project is not inadequate to assess the potential for burrowing owls to occur, warranting additional habitat assessment, surveys, and impact assessment.

Attachment J of the Biological Resources Report for the Mid-Coachella Canal Storage Project, dated August 2, 2022, includes a summary conclusion on the potential for burrowing owl to occur based on the research and habitat assessment that was performed. The summary conclusion states that, "Suitable habitat is not present in the project site, which appears to occur outside this species' range. Burrows were not noted during the general biological survey, and anecdotal information from CVWD employees does not include reports of species occurrence within berms and dikes associated with canal infrastructure."

Pages 3 and 4 of the Biological Resources Report for the Mid-Coachella Canal Storage Project, dated August 2, 2022, describe the methodology implemented through pre-survey research and a general biological survey to inform the conclusions made regarding the potential for burrowing owl to occur. As stated, the pre-survey research included a query of sensitive species and habitats databases within five miles of the project area, including CDFW's CNDDDB, among other sources. As also stated, the EIS/EIR for the Coachella Canal Lining Project was also referenced, including information from the CVWD regarding burrowing owl occurrence within the canal. Last, and as also stated, the general biological survey focused on qualifying habitat suitability and the potential for the occurrence of sensitive species, including burrowing owl, among other resources.

It is acknowledged that burrowing owl are reported at locations in the region, including locations within three and five miles of the Project site. Attachment B of the Biological Resources Report for the Mid-Coachella Canal Storage Project, dated August 2, 2022, depicts the locations of burrowing owls that have been reported to the CNDDDB within three and five miles of the Project site. These occurrences are located within the low-lying agricultural lands near the unincorporated community of Wister to the general southwest of the Project site. The pre-survey research included an assessment of these

occurrences in relation to distance from the Project site, terrain, habitat, proximity to other occurrences, and other factors. During the pre-survey research, it was preliminarily concluded that the Project site's general biological setting and location are less suitable and detached from other occurrences in the region that are associated with the low-lying agricultural lands of the valley. Nevertheless, it was concluded during the pre-survey research that further assessment of burrowing owl potential to occur on-site was warranted through conducting a habitat assessment survey at the site, which was completed during the January 2022 general biological survey.

When qualifying habitat suitability specific to the burrowing owl, the general biological survey included the habitat assessment elements referenced in Appendix C of CDFW's *2012 Staff Report on Burrowing Owl Mitigation*. Most importantly, the survey included an inspection of items 5g and 5h from Appendix C of CDFW's 2012 Staff Report on Burrowing Owl Mitigation, which are the presence of burrowing owl individuals or pairs or sign, and the presence of suitable burrows and/or burrow surrogates, regardless of a lack of any burrowing owl sign and/or burrow surrogates. As stated on Page 8 of the Biological Resources Report for the Mid-Coachella Canal Storage Project, dated August 2, 2022, no special-status animal species were observed during the survey, including burrowing owl. Furthermore, as stated in the conclusion summary contained within Attachment J of the Biological Resources Report for the Mid-Coachella Canal Storage Project, dated August 2, 2022, no burrows were noted. The findings of the research and survey supported the determination that burrowing owls are not likely to occur within the Project site due to the reasons stated.

Acknowledging the potential for nesting birds, including burrowing owl, to move onto the Project site in the future if conditions were to become more suitable, the MND identified the potential for a significant impact to occur on nesting birds and prescribed Mitigation Measure BIO-1 to adequately reduce the potential impact on nesting birds to less than significant. At the recommendation of CDFW, the CVWD agrees to incorporate the burrowing owl preconstruction survey requirements into the Project by modifying Mitigation Measure BIO-1 to include language from CDFW's, Mitigation Measure BIO-[B]. Mitigation Measure BIO-1, as modified, is included in its entirety below in response to comment CDFW-6.

Comment CDFW-6 Nesting Birds

3) Nesting Birds

It is the Project proponent's responsibility to comply with all applicable laws related to nesting birds and birds of prey. Fish and Game Code sections 3503, 3503.5, and 3513 afford protective measures as follows: section 3503 states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by Fish and Game Code or any regulation made pursuant thereto. Fish and Game Code section 3503.5 makes it unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds-of-prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by Fish and Game Code or any regulation adopted pursuant thereto. Fish and Game Code section 3513 makes it unlawful to take or possess any migratory nongame bird

except as provided by rules and regulations adopted by the Secretary of the Interior under provisions of the Migratory Bird Treaty Act of 1918, as amended (16 U.S.C. § 703 et seq.).

The MND indicates that the Project site has the potential to support nesting birds. Although the MND includes a mitigation measure (BIO-1) for nesting birds, the timing and scope are insufficient. CDFW recommends that the revised MND include nesting bird specific avoidance and minimization measures to ensure that potential impacts are mitigated to a level less than significant. Project-specific avoidance and minimization measures may include, but are not limited to, Project phasing and timing (avoiding peak breeding season), monitoring of Project-related noise (where applicable), sound walls, and buffers, where appropriate. CDFW recommends that disturbance of occupied nests of migratory birds and raptors within the Project site be avoided any time birds are nesting on-site. Pre-construction nesting bird surveys shall be performed within 3 days prior to Project activities to determine the presence and location of nesting birds. To support the Project applicant in avoiding the take of nests, eggs, and nesting birds any time they are located on-site, CDFW recommends the following changes to Mitigation Measure BIO-1 for Nesting Birds, with additions in bold and removals in strikethrough:

Mitigation Measures BIO-1: Nesting Birds

Nesting bird surveys shall be performed by a qualified avian biologist no more than 3 days prior to vegetation removal or ground-disturbing activities. Pre-construction surveys shall focus on both direct and indirect evidence of nesting, including nest locations and nesting behavior. The qualified avian biologist will make every effort to avoid potential nest predation as a result of survey and monitoring efforts. If active nests are found during the pre-construction nesting bird surveys, a qualified biologist shall establish an appropriate nest buffer to be marked on the ground. Nest buffers are species specific and shall be at least 300 feet for passerines and 500 feet for raptors. A smaller or larger buffer may be determined by the qualified biologist familiar with the nesting phenology of the nesting species and based on nest and buffer monitoring results. Established buffers shall remain on-site until a qualified biologist determines the young have fledged or the nest is no longer active. Active nests and adequacy of the established buffer distance shall be monitored daily by the qualified biologist until the qualified biologist has determined the young have fledged or the Project has been completed. The qualified biologist has the authority to stop work if nesting pairs exhibit signs of disturbance. ~~If the removal of trees and/or shrubs must occur during the general passerine breeding season (February 1 to August 31) or general raptor breeding season (January 15 to July 15), a qualified Biologist shall conduct a nesting Bird survey within seven days of removal activities to determine the presence or absence of nesting birds. If no active nests belonging to nesting birds are found during the pre-construction surveys, then no additional action shall be required. If an active nest is found, then the nest and an appropriate buffer shall be avoided. The initial size of the avoidance buffer shall be 300 feet for passerines and 500 feet for raptors, and shall be reduced at the discretion of the qualified biologist depending on the species and level~~

~~of disturbance. Activities shall be allowed to proceed within the avoidance buffer once the young have fledged and the nest is confirmed no longer active, as determined by the qualified biologist.~~

Response to Comment CDFW-6

CDFW suggests that the timing and scope of the nesting bird survey requirements described in Mitigation Measure BIO-1 of the MND are insufficient. For any activity undertaken whereby nesting birds could be affected, CVWD strives to achieve regional standards for the avoidance and protection of nesting birds in compliance with Fish and Game Code. While CVWD respectfully disagrees that the timing and scope described in Mitigation Measure BIO-1 are insufficient, CVWD agrees in this circumstance to incorporate CDFW's recommendations for the proposed project. Mitigation Measure BIO-1: Nesting Birds in the IS/MND section 3.1, IV, is hereby modified as follows, with additions underlined and removals in ~~strikethrough~~:

MM-BIO-1: Preconstruction Surveys for Nesting Birds

~~If the removal of trees and/or shrubs must occur during the general passerine breeding season (February 1 to August 31) or general raptor nesting season (January 15 to July 15), a qualified biologist shall conduct a nesting bird survey within seven days of removal activities to determine the presence or absence of nesting birds. If no active nests are found during the pre-construction surveys, then no additional action shall be required. If an active nest is found, then the nest and an appropriate buffer shall be implemented. The initial size of the avoidance buffer shall be 300 feet for passerines and 500 feet for raptors and shall be reduced at the discretion of the qualified biologist depending on the species and level of disturbance. Activities shall be allowed to proceed within the avoidance buffer once the young have fledged and the nest is confirmed no longer active, as determined by the qualified biologist.~~

Nesting bird surveys shall be performed by a qualified avian biologist no more than 3 days prior to vegetation removal or ground-disturbing activities. Pre-construction surveys shall focus on both direct and indirect evidence of nesting, including nest locations and nesting behavior. The qualified avian biologist will make every effort to avoid potential nest predation as a result of survey and monitoring efforts. If active nests are found during the pre-construction nesting bird surveys, a qualified biologist shall establish an appropriate nest buffer to be marked on the ground. Nest buffers are species specific and shall be at least 300 feet for passerines and 500 feet for raptors. A smaller or larger buffer may be determined by the qualified biologist familiar with the nesting phenology of the nesting species and based on nest and buffer monitoring results. Established buffers shall remain on-site until a qualified biologist determines the young have fledged or the nest is no longer active. Active nests and adequacy of the established buffer distance shall be monitored daily by the qualified biologist until the qualified biologist has determined the young have fledged or the Project has been completed. The qualified biologist has the authority to stop work if nesting pairs exhibit signs of disturbance.

No less than 60 days prior to the start of Project-related activities, a burrowing owl habitat assessment shall be conducted by a qualified biologist according to the specifications of the *Staff Report on Burrowing Owl Mitigation* (California Department of Fish and Game, March 2012 or most recent version).

If the habitat assessment demonstrates suitable burrowing owl habitat, then a focused burrowing owl surveys shall be conducted by a qualified biologist according to the Staff Report on Burrowing Owl Mitigation. If burrowing owls are detected during the focused surveys, the qualified biologist shall provide appropriate distances for construction activity to stay away from occupied burrows, through the use of a no work zone or avoidance buffer. Biologist shall ensure If impacts to occupied burrows cannot be avoided, information shall be provided regarding adjacent or nearby suitable habitat available to owls along with proposed relocation actions. Proposed implementation of Burrowing Owl relocation should only be considered as a last resort, after all other options have been evaluated as relocation is not in itself an avoidance, minimization, or mitigation method and has the possibility to result in take. Prior to considering burrowing owl relocation the qualified biologist and project applicant shall consult with CDFW to confirm the location and determine if the Burrowing Owls are appropriate candidates for the relocation process. If no suitable habitat is available nearby, details regarding the creation of artificial burrows (numbers, location, and type of burrows) and management activities for relocated owls is to be reported to CDFW.

Preconstruction burrowing owl surveys shall be conducted no less than 14 days prior to the start of Project-related activities and within 24 hours prior to ground disturbance, in accordance with the Staff Report on Burrowing Owl Mitigation (2012 or most recent version). Preconstruction surveys should be performed by a qualified biologist following the recommendations and guidelines provided in the Staff Report on Burrowing Owl Mitigation. If the preconstruction surveys confirm occupied burrowing owl habitat, the qualified biologist shall develop a mandatory avoidance buffer and no work zones around the burrow location. If work must occur within the avoidance buffer, the qualified biologist will monitor the activity to ensure it does not affect the Burrowing Owl behavior. The qualified biologist will also consider the placement of visual and sound barriers if the avoidance buffer perimeter is reduced until adequate measures to prevent impacts to owls are put in place.

Comment CDFW-7 Artificial Nighttime Lighting

4) Artificial Nighttime Lighting

The MND lacks a description of the type of artificial nighttime lightning that would be used during construction activities and an analysis of direct and indirect impacts on biological resources including burrowing owls, migratory birds that fly at night, bats, and other nocturnal and crepuscular wildlife. Available research indicates that artificial nighttime lighting alters ecological processes including, but not limited to, the temporal niches of species; the repair and recovery of physiological function; the measurement of time through interference with the detection of circadian and lunar and seasonal cycles; and the detection of resources and natural enemies and navigation. Further, many of the effects of artificial nighttime lightning on population or ecosystem-level processes are still poorly known. CDFW

recommends that the MND is updated to include a description of any artificial nighttime lighting that will be used during Project construction, an analysis of the direct and indirect impacts of artificial nighttime lighting on biological resources, and avoidance, minimization, and mitigation measures that will reduce impacts to less than significant.

CDFW recommends that the Coachella Valley Water District add the following mitigation measure to a revised MND:

MM B10-[C]: Artificial Nighttime Lighting

During Project construction activities, the Project shall eliminate all nonessential lighting throughout the Project area and avoid or limit the use of artificial light during the hours of dawn and dusk when many wildlife species are most active. Ensure that lighting for Project activities is shielded, cast downward, and does not spill over onto other properties or upward into the night sky (see the International Dark-Sky Association standards at <http://darksky.org>). Use LED lighting with a correlated color temperature of 3,000 Kelvins or less, properly dispose of hazardous waste, and recycle lighting that contains toxic compounds with a qualified recycler.

Response to Comment CDFW-7

CVWD does not intend to conduct any construction activities during nighttime hours and therefore no use of nighttime lighting was included as a part of the Project Description. The omission was not an oversight, the Project Description is not inadequate in its present form, and the impact assessment is not deficient. However, CVWD will add the requested measure regarding artificial nighttime lighting as a condition to be implemented by the contractor in the event that nighttime lighting is needed for any reason on a temporary emergency basis.

Comment CDFW-8 Special-Status Species Database

ENVIRONMENTAL DATA

CEQA requires that information developed in environmental impact reports and negative declarations be incorporated into a database which may be used to make subsequent or supplemental environmental determinations. (Pub. Resources Code § 21003, subd. (e).) Accordingly, please report any special status species and natural communities detected during Project surveys to the California Natural Diversity Database (CNDDDB). The CNDDDB field survey form can be filled out and submitted online at the following link: <https://wildlife.ca.gov/Data/CNDDDB/Submitting-Data>. The types of information reported to CNDDDB can be found at the following link: <https://www.wildlife.ca.gov/Data/CNDDDB/Plants-and-Animals>.

Response to Comment CDFW-8

Comment noted. No special status species or unique natural communities were detected during the Project surveys completed to support the impact assessment. Should any special status species and/or unique natural communities be detected during the required pre-construction surveys of the Project area, they will be reported to the California Natural Diversity Database (CNDDDB).

Comment CDFW-9 Environmental Document Filing Fees

ENVIRONMENTAL DOCUMENT FILING FEES

The Project, as proposed, would have an impact on fish and/or wildlife, and assessment of environmental document filing fees is necessary. Fees are payable upon filing of the Notice of Determination by the Lead Agency and serve to help defray the cost of environmental review by CDFW. Payment of the environmental document filing fee is required in order for the underlying project approval to be operative, vested, and final. (Cal. Code Regs, tit. 14, § 753.5; Fish & Game Code, § 711.4; Pub. Resources Code, § 21089.)

Response to Comment CDFW-9

Comment noted. CDFW fees will be paid by CVWD upon filing of the Notice of Determination with the County Clerk and State Clearinghouse.

California Department of Water Resources, Division of Safety of Dams (DSOD) – DSOD

Letter dated January 19, 2023

Comment DSOD-1

The Division of Safety of Dams (DSOD) has reviewed the Notice of Completion and the Draft Initial Study/Mitigated Negative Declaration Mid-Canal Storage Project (Project), which describes the proposed modification of a segment of the Coachella Canal to construct a reservoir retaining up to 728 acre-feet of water.

Insufficient information is provided in the Project description to make an accurate jurisdictional determination with regards to the described work and it is unclear whether some or all the work will be subject to State jurisdiction for dam safety. Therefore, the applicant, Coachella Valley Water District, needs to submit preliminary plans so that DSOD can make a jurisdictional determination.

As defined in Sections 6002 and 6003, Division 3, of the California Water Code, dams 25 feet or higher with a storage capacity of more than 15 acre-feet, and dams higher than 6 feet with a storage capacity of 50 acre-feet or more are subject to State jurisdiction. The dam height is the vertical distance measured from the maximum possible water storage level to the downstream toe of the barrier.

Response to Comment DSOD-1

Comment noted. The Project description is not deficient since there is no dam involved in the in-line canal storage system. As detailed in the project description, the project is simply a reconfiguration of two existing parallel, federally owned canals. The canals will be joined into a single widened canal using an existing control gate on Siphon 14 to create operational storage within the widened canal section. The comment cites sections 6002 and 6003, Division 3 of the California Water Code which do not apply to the project. Rather, Section 6004 (a) cited in-full below does apply, and clearly states that no canal structure (in this case the existing control gate) used to control water levels in the canal shall be considered to be a dam for purposes of State jurisdiction.

Sec. 6004 (a):

No obstruction in a canal used to raise or lower water therein or divert water therefrom, no levee, including but not limited to a levee on the bed of a natural lake the primary purpose of which levee is to control floodwaters, no railroad fill or structure, and no road or highway fill or structure, no circular tank constructed of steel or concrete, or both, no tank elevated above the ground, and no barrier which is not across a stream channel, watercourse, or natural drainage area and which has the principal purpose of impounding water for agricultural use shall be considered a dam. (Italicized emphasis added.)

As explained in the second sentence of the project description, *"The Coachella Canal is owned by the U.S. Bureau of Reclamation (Reclamation) and operated and maintained by the Coachella Valley Water District (CVWD) for distribution of water for agricultural irrigation."* In addition to its status as a canal rather than a dam, the Coachella Canal is a federal facility, which is also not subject to DSOD jurisdiction. Therefore, the District concludes that there is no applicable requirement for CVWD to submit preliminary plans for DSOD to make a jurisdictional determination.

The District appreciates DSOD's participation in its CEQA review process.

California Department of Transportation ("Caltrans") – CT

Letter dated January 18, 2023 (3 pages)

Comment CT-1

Caltrans has discretionary authority with respect to highways under its jurisdiction and may, upon application and if good cause appears, issue a special permit to operate or move a vehicle or combination of vehicles or special mobile equipment of a size or weight of vehicle or load exceeding the maximum limitations specified in the California Vehicle Code. The Caltrans Transportation Permits Issuance Branch is responsible for the issuance of these special transportation permits for

oversize/overweight vehicles on the State Highway network. Additional information is provided online at: <http://www.dot.ca.gov/trafficops/permits/index.html>

Response to Comment CT-1

Comment noted. If the construction contractor will be transporting earthmoving equipment of a size or weight of vehicle or load exceeding the maximum limitations specified in the California Vehicle Code, the contractor will be required to obtain the appropriate special transportation permit(s) in coordination with the Caltrans Transportation Permits Issuance Branch.

Comment CT-2

A Traffic Control Plan is to be submitted to Caltrans District 11, including the intersections at SR- 111 /English Road and Main Street in Niland, at least 30 days prior to the start of any construction. Traffic shall not be unreasonably delayed. The plan shall also outline suggested detours to use during closures, including routes and signage.

Potential impacts to the highway facilities (SR-111) and traveling public from the detour, demolition and other construction activities should be discussed and addressed before work begins.

Response to Comment CT-2

Comment noted. CVWD understands that a Traffic Control Plan developed in coordination with Caltrans District 11 is required for any project that has the potential to cause traffic delays on the State highway network, including temporary detours and/or potential impacts to the highway facilities related to demolition and other construction activities. As explained in the Traffic section of the IS/MND, these conditions do not exist for the Mid-Canal Storage Project which will only involve transport of equipment and materials to the canal work site that is completely removed from any State Highway and has no potential to require any road or lane closures or a need for any detours that could impact the traveling public.

Imperial Irrigation District (“IID”) – IID

Letter dated January 23, 2023 (3 pages with 6-page attachment)

Comment IID-1

5. IID Energy initial plan to service the project would include the following:

- A Distribution Circuit Study on the feasibility to accommodate CVWD's project electrical load via a 200amp 120/240v single-phase electrical panel that will serve a water gate and a SCADA building from the existing P-63 Circuit of Niland Substation. Any circuit upgrades deemed necessary to serve the project will be the financial responsibility of the CVWD. Line capacitors may be required as part of the mitigation plan. This will need to be determined by IID's Distribution Planning Unit.
- A tentative plan of service would be to extend a single-phase overhead primary line approximately 3.5 miles from existing 110 pole #67891-40' along English Road rights of way, which is an Imperial County road, up to the intersection of the Coachella Canal Road rights of way utilizing 40 ft. & 45 ft. distribution-rated wood poles and associated guying anchors. Please note the new single-phase primary line extension would need to cross under the IID's existing "KN&KS" 230kV and "N" 161kV transmission lines and then proceed in a north westerly direction along the north side of the Coachella Canal Road right of way, to the Coachella Canal Siphon 14 location. IID would dead end the single-phase primary line, hang a single-phase pole mounted transformer and run an overhead secondary service to CVWD's 200 amp 120/240V customer meter pole.

Please see attached photo of intersection with IID transmission lines and overhead single-phase primary pole standard details, that include guying, head guy pole guying and customer meter pole detail.

For additional information on these items contact Gabriel Ramirez, 11D Project Development Planner, at (760) 339-9257 or e-mail Mr. Ramirez at gramirez@IID.com.

Response to Comment IID-1

CVWD appreciates IID's input in providing these electrical circuit details for providing service to the SCADA building at the control gate on Siphon 14. The required electrical circuit and route from IID's existing Niland Substation are discussed in the Draft IS/MND and have not been segmented as a separate project. However, the circuit details provided in IID's comment were not available when the Draft IS/MND was prepared and have been added to section "2.5.5 Electrical Service" in the Project Description for this Final IS/MND as shown below. CVWD has evaluated this updated project description and determined it to be consistent with the analysis in the draft MND. CVWD will continue to coordinate closely with IID throughout completion of project engineering and prior to and throughout construction.

Previous Text from Draft IS/MND:

2.5.5 Electrical Service

~~A new electrical line will be extended to Check 14 to power operations of the gate, and for operation of the Supervisory Control and Data Acquisition (SCADA) system allowing remote control of the system. The electrical line will replace an existing solar panel battery system that has been subjected to regular vandalism and theft. Final design details have not been completed but based upon coordination~~

~~between CVWD and IID engineering staff, the 12kV line will be pole mounted, extending approximately 3.10 miles from an existing IID switchyard west of the canal along English Road, an existing county road right-of-way northeast to the canal road ROW and then north to Check 14. The line will be routed entirely within the existing county and canal road ROW. The line will include approximately 82 wooden poles 38 feet tall with spacing of 200 feet.~~

New Text for Final IS/MND:

2.5.5 Electrical Service

A new electrical line will be extended to Check 14 to power operations of the gate, and for operation of the Supervisory Control and Data Acquisition (SCADA) system allowing remote control of the system. The electrical line will replace an existing solar panel battery system that has been subjected to regular vandalism and theft. Final design details have not been completed but based upon coordination between CVWD and IID engineering staff, the 12kV line will be pole mounted, extending approximately 3.5 miles from an existing IID switchyard west of the canal along English Road, an existing county road right-of-way northeast to the canal road ROW and then north to Check 14. The line will be routed entirely within the existing county and canal road ROW. The line will include approximately 82 wooden poles 40- and 45-feet tall with spacing of 200-feet.

IID's initial plan to service the project would include the following circuit details:

- A Distribution Circuit Study on the feasibility to accommodate CVWD's project electrical load via a 200amp 120/240v single-phase electrical panel that will serve a water gate and a SCADA building from the existing P-63 Circuit of Niland Substation. Any circuit upgrades deemed necessary to serve the project will be the financial responsibility of the CVWD. Line capacitors may be required as part of the plan to be determined by IID's Distribution Planning Unit.
- A tentative plan of service would be to extend a single-phase overhead primary line approximately 3.5 miles from existing IID pole #67891-40' along English Road rights of way, which is an Imperial County road, up to the intersection of the Coachella Canal Road rights of way utilizing 40 feet and 45 feet distribution-rated wood poles and associated guying anchors. The new single-phase primary line extension will cross under IID's existing "KN&KS" 230kV and "N" 161kV transmission lines and then proceed in a north westerly direction along the north side of the Coachella Canal Road right-of-way, to the Coachella Canal Siphon 14 location. IID would dead end the single-phase primary line, hang a single-phase pole mounted transformer and run an overhead secondary service to CVWD's 200 amp 120/240V customer meter pole.

A photo of the intersection with IID transmission lines and schematic diagrams showing overhead single-phase primary pole standard details, that include guying, head guy pole guying and customer meter pole detail is included as an attachment to the IID comment letter in Appendix G of this Final IS/MND.

Comment IID-2

6. The applicant will be required to provide rights-of-way and easements for power line extensions and/or any other infrastructure needed to serve the project.

Response to Comment IID-2

Comment noted. CVWD is committed to obtain all required rights-of-way and easements for the power line extension and any other related infrastructure needed to serve the project and will coordinate with IID to confirm they have been obtained for IID to commence construction of the electrical circuit extension.

Comment IID-3

7. Any construction or operation on IID property or within its existing and proposed right of way or easements including but not limited to: surface improvements such as proposed new streets, driveways, parking lots, landscape; and all water, sewer, storm water, or any other above ground or underground utilities; will require an encroachment permit, or encroachment agreement (depending on the circumstances). A copy of the IID encroachment permit application and instructions for its completion are available at <https://www.iid.com/about-iid/department-directory/real-estate>. The IID Real Estate Section should be contacted at (760) 339-9239 for additional information regarding encroachment permits or agreements.

Response to Comment IID-3

Comment noted. CVWD will coordinate with the IID Real Estate Section to obtain all required encroachment permits and/or agreements needed for IID to commence construction of the electrical circuit extension.

Comment IID-4

8. Any new, relocated, modified or reconstructed IID facilities required for and by the project (which can include but is not limited to electrical utility substations, electrical transmission and/or distribution lines, ancillary facilities associated with the conveyance of energy service; the acquisition and dedication of real property, rights of way and/or easements for the siting and construction of electrical utility substations, electrical transmission and/or distribution lines and ancillary facilities associated with the conveyance of energy service, etc.) need to be included as part of the project's California Environmental Quality Act (CEQA) and/or National Environmental Policy Act (NEPA) documentation, environmental impact analysis and mitigation. Failure to do so will result in postponement of any construction and/or modification of IID facilities until such time as the environmental documentation is amended and environmental impacts are fully mitigated. Any mitigation necessary as a result of the construction, relocation and/or upgrade of IID facilities is the responsibility of the project proponent.

Response to Comment IID-4

Comment noted. CVWD has endeavored to include all available information regarding the electrical circuit in this Final IS/MND CEQA documentation for the project and has worked closely with IID staff to define the electrical circuit routing in a manner that optimizes existing rights-of-way and avoids the need for encroachment on undisturbed desert lands that may have significant habitat value or other potential adverse environmental effects. If it is determined in final engineering design that any unforeseen aspects of the project may have such effects, supplemental CEQA documentation will be completed in coordination with IID.

Comment IID-5

Dividing a project into two or more pieces and evaluating each piece in a separate environmental document (Piecemealing or Segmenting), rather than evaluating the whole of the project in one environmental document, is explicitly forbidden by CEQA, because dividing a project into a number of pieces would allow a Lead Agency to minimize the apparent environmental impacts of a project by evaluating individual pieces separately, each of which may have a less-than-significant impact on the environment, but which together may result in a significant impact. Segmenting a project may also hinder developing comprehensive mitigation strategies. In general, if an activity or facility is necessary for the operation of a project, or necessary to achieve the project objectives, or a reasonably foreseeable consequence of approving the project, then it should be considered an integral project component that should be analyzed within the environmental analysis. The project description should include all project components, including those that will have to be approved by responsible agencies. The State CEQA Guidelines define a project under CEQA as "the whole of the action" that may result either directly or indirectly in physical changes to the environment. This broad definition is intended to provide the maximum protection of the environment. CEQA case law has established general principles on project segmentation for different project types. For a project requiring construction of offsite infrastructure, the offsite infrastructure must be included in the project description. *San Joaquin Raptor/Wildlife Rescue Center v. County of Stanislaus* (1994) 27 Cal.App. 4th 713.

Response to Comment IID-5

Comment noted. CVWD's Final IS/MND is intended to include the required electrical circuit and route from IID's existing Niland Substation, and there has been no intent to segment the electrical circuit as a separate project. The additional engineering details of the circuit provided in IID's comment have been added to section "2.5.5 Electrical Service" in the Project Description for this Final IS/MND as shown in response to Comment IID-1 above.

End of Responses to Comments.



Mitigation Monitoring and Reporting Program

for the
Coachella Canal
Mid-Canal Storage Project

Mitigated Negative Declaration
SCH#: 2022120628

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February 2023

Mitigation Monitoring and Reporting Program

The California Environmental Quality Act (CEQA) requires that when a lead agency adopts a Mitigated Negative Declaration (MND), it shall prepare a monitoring or reporting program for all required mitigation measures (CEQA Guidelines Section 15097). This Mitigation Monitoring and Reporting Program (MMRP) describes the monitoring and reporting program for mitigation measures adopted by Coachella Valley Water District (CVWD) to avoid or substantially reduce impacts related to the Mid-Canal Storage Project (project) to less than significant levels. CVWD and its contractors are required to implement the adopted mitigation measures for the project in accordance with the MND. This MMRP contains a checklist and description of all adopted mitigation measures, including the responsible parties, timing, and completion criteria.

Program Administration

The MMRP shall be administered by CVWD. Mitigation measures shall be incorporated into design and construction contracts, as appropriate, to ensure full implementation. The MMRP shall be maintained by the designated CVWD Project Manager and be available for inspection upon request at CVWD offices.

Project Description

The project consists of creating a single wide channel by joining two existing parallel canal channels, one the original earthen canal constructed in the 1940s, and the second concrete-lined canal constructed in 2005 as a part of the Coachella Canal Lining Project (CCLP). All earthwork required to join the two channels and create the storage reservoir will be conducted within the existing fence lines defining boundaries of the federal right-of-way within which the parallel canals are located. The project will provide up to 728 acre-feet of water storage to alleviate water storage deficiencies and increase water storage capacity, reliability, and efficiency within the CVWD water distribution system. The project will also resolve an ongoing maintenance problem in the affected lined-canal segment caused by high-clay content that results in significant cracking of the concrete. All earthwork will be balanced on site with no material to be exported. Imported rock material will be placed on the eastern reservoir bank for erosion control. Work will be staged so that water supply deliveries are maintained throughout project development. Earthwork and related construction activities are expected to be completed in 6 to 8 months beginning in late summer 2023 and concluding in late-winter 2024.

Mitigation Monitoring Requirements

A mitigation monitoring checklist has been developed for the proposed project and is intended for use by CVWD, as lead agency and designated monitoring entity for the proposed project. The checklist, presented as Table 1, summarizes the mitigation requirements for the proposed project, anticipates timing, and identifies responsible parties for ensuring implementation of each mitigation measure. These mitigation measures are presented using the naming conventions and categories in the MND.

Mitigation Measure	Monitoring and Reporting Actions	Implementation Schedule	Monitoring Frequency	Responsible Party	Review and Approval by:	Verification: Status/ Date Completed/ Initials
Air Quality						
Mitigation Measure AQ-1: Dust Control The Construction Contractor will obtain a Construction Permit from the IVAPCD for a fugitive dust control program. This program shall include, but not limited to the following: <ul style="list-style-type: none"> Water shall be applied at least two times daily, preferably in the mid-morning, afternoon, and after work is done for the day, to exposed surfaces including graded and disturbed areas in sufficient quantity to prevent generation of dust plumes. Traffic speeds on unpaved roads shall be limited to 25 miles per hour. Operations on unpaved surfaces shall be suspended when winds exceed 25 miles per hour. On-site stockpiles shall be covered or watered at least twice per day. 	1. Include measure in contract documents.	1. Contracting	1. Once	1. CVWD	CVWD	1.
	2. Confirm that Construction Permit has been obtained from IVAPCD.	2. Construction	2. Throughout construction, if applicable.	2. CVWD, Construction Contractor		2.
	3. Review construction site for compliance with dust control measures.	3. Construction	3. Throughout construction.	3. CVWD, Construction Contractor		3.
Mitigation Measure AQ-2: Construction Equipment Maintenance The construction contractor shall ensure that heavy-duty diesel trucks and other construction equipment are properly tuned and maintained in accordance with the manufacturer's specifications to ensure minimum emissions under normal operations.	1. Include measure in contract documents.	1. Contracting	1. Once	1. CVWD	CVWD	1.
	2. Confirm Contractor implementation.	2. Construction	2. Once	2. CVWD, Construction Contractor		2.
Mitigation Measure AQ-3: Vehicle Idling Time Limits All construction vehicles, both on- and off-site, and construction equipment idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations). The construction contractor shall provide awareness training to equipment operators regarding this idling limit.	1. Include measure in contract documents.	1. Contracting	1. Once	1. CVWD	CVWD	1.
	2. Confirm Contractor training for all equipment operators.	2. Construction	2. Once	2. CVWD, Construction Contractor		2.
	3. Review construction site for compliance with equipment idling limits.	3. Construction	3. Throughout construction.	3. CVWD		3.
Biological Resources						
Mitigation Measure BIO-1: Preconstruction Surveys for Nesting Birds Nesting bird surveys shall be performed by a qualified avian biologist no more than 3 days prior to vegetation removal or ground-disturbing activities. Pre-construction surveys shall focus on both direct and indirect evidence of nesting, including nest locations and nesting behavior. The qualified avian biologist will make every effort to avoid potential nest predation as a result of survey and monitoring efforts. If active nests are found during the pre-construction nesting bird surveys, a qualified biologist shall establish an appropriate nest buffer to be marked on the ground. Nest buffers are species specific and shall be at least 300 feet for passerines and 500 feet for raptors. A smaller or larger buffer may be determined by the qualified biologist familiar with the nesting phenology of the nesting species and based on nest and buffer monitoring results. Established buffers shall remain on-site until a qualified biologist determines the young have fledged or the nest is no longer active. Active nests and adequacy of the established buffer distance shall be monitored daily by the qualified biologist until the qualified biologist has determined the young have fledged or the Project has been completed. The qualified biologist has the authority to stop work if nesting pairs exhibit signs of disturbance. No less than 60 days prior to the start of Project-related activities, a burrowing owl habitat assessment shall be conducted by a qualified biologist according to the specifications of	1. Include measure in contract documents.	1. Contracting	1. Once	1. CVWD	CVWD	1.
	2. Pre-Construction	2. CVWD, Construction Contractor	2. Throughout nesting seasons, if applicable.	2. CVWD, Construction Contractor		2.
	3. Conduct nesting bird survey and implement avoidance buffers for any active nests. Review construction site for compliance with avoidance buffers if applicable.	3. Construction, if needed.	3. Throughout nesting seasons, if applicable.	3. CVWD		3.

Mitigation Measure	Monitoring and Reporting Actions	Implementation Schedule	Monitoring Frequency	Responsible Party	Review and Approval by:	Verification: Status/ Date Completed/ Initials
<p>the Staff Report on Burrowing Owl Mitigation (California Department of Fish and Game, March 2012 or most recent version). If the habitat assessment demonstrates suitable burrowing owl habitat, then a focused burrowing owl surveys shall be conducted by a qualified biologist according to the Staff Report on Burrowing Owl Mitigation. If burrowing owls are detected during the focused surveys, the qualified biologist shall provide appropriate distances for construction activity to stay away from occupied burrows, through the use of a no work zone or avoidance buffer. Biologist shall ensure If impacts to occupied burrows cannot be avoided, information shall be provided regarding adjacent or nearby suitable habitat available to owls along with proposed relocation actions. Proposed implementation of Burrowing Owl relocation should only be considered as a last resort, after all other options have been evaluated as relocation is not in itself an avoidance, minimization, or mitigation method and has the possibility to result in take. Prior to considering burrowing owl relocation the qualified biologist and project applicant shall consult with CDFW to confirm the location and determine if the Burrowing Owls are appropriate candidates for the relocation process. If no suitable habitat is available nearby, details regarding the creation of artificial burrows (numbers, location, and type of burrows) and management activities for relocated owls is to be reported to CDFW. Preconstruction burrowing owl surveys shall be conducted no less than 14 days prior to the start of Project-related activities and within 24 hours prior to ground disturbance, in accordance with the Staff Report on Burrowing Owl Mitigation (2012 or most recent version). Preconstruction surveys should be performed by a qualified biologist following the recommendations and guidelines provided in the Staff Report on Burrowing Owl Mitigation. If the preconstruction surveys confirm occupied burrowing owl habitat, the qualified biologist shall develop a mandatory avoidance buffer and no work zones around the burrow location. If work must occur within the avoidance buffer, the qualified biologist will monitor the activity to ensure it does not affect the Burrowing Owl behavior. The qualified biologist will also consider the placement of visual and sound barriers if the avoidance buffer perimeter is reduced until adequate measures to prevent impacts to owls are put in place.</p>						
<p>Mitigation Measure BIO-2: Worker Education Awareness Program A Worker Environmental Awareness Program (WEAP) shall be implemented to ensure that Project construction occurs within a framework of safeguarding environmentally sensitive resources. The WEAP shall include information on biological resources that may occur on the site, with emphasis on listed and special-status species. Education shall include, but not be limited to, ecology, natural history, endangerment factors, legal protection, site mitigation measures, and hierarchy of command. Site rules of conduct shall be identified, including but not limited to: speed limits, work areas that must be accompanied by a biological monitor, parking areas, looking under parked vehicles prior to moving them, trash deposition, off-site conduct in the area of the Project, and other employee response protocols. Teamwork will be emphasized, but it will be clear that willful non-compliance may result in sufficiently severe penalties to the contractor that the contractor may dismiss the offending employee. The educational format will be a video, shown initially by the Project Biologist, and subsequently if needed for new employees, by trained and approved personnel. The Project Biologist also may be videotaped giving the first program, for assistance to</p>	<ol style="list-style-type: none"> 1. Include measure in contract documents. 2. Implement WEAP including initial training for all workers and updated training for any new workers throughout the construction period. 3. Confirm training program documentation including wallet card, hard hat stickers and sign-in sheet. 	<ol style="list-style-type: none"> 1. Contracting 2. Pre-construction and construction 3. Pre-construction and throughout construction 	<ol style="list-style-type: none"> 1. Once 2. Throughout construction, if applicable. 3. Throughout construction 	<ol style="list-style-type: none"> 1. CVWD 2. CVWD, Construction Contractor 3. CVWD. Construction Contractor 	CVWD	<ol style="list-style-type: none"> 1. 2. 3.

Mitigation Measure	Monitoring and Reporting Actions	Implementation Schedule	Monitoring Frequency	Responsible Party	Review and Approval by:	Verification: Status/ Date Completed/ Initials
subsequent instructors. All workers completing the education program shall be given a wallet card with site "rules" and contact cell phone numbers, and a sticker to affix to their hard hat. Each shall sign a sheet attesting to completing the training program.						
Cultural Resources and Tribal Cultural Resources						
Mitigation Measure CUL-1: Cultural Resources Worker Environmental Awareness Program Training A Worker Environmental Awareness Program (WEAP) shall be implemented to ensure that Project construction occurs within a framework of safeguarding environmentally sensitive resources. The WEAP shall include information on cultural resources that may occur on the site, including the types and forms of artifacts that occur in the region. Education shall include, but not be limited to, legal protection, site mitigation measures, the actions that must be taken should cultural finds be made, and the hierarchy of command. The educational format will be a video, shown initially by the Principal Investigator or their assignee, and subsequently if needed for new employees, by trained and approved personnel. The Principal Investigator or their assignee also may be videotaped giving the first program, which can then be presented to new arrivals to the project. All workers completing the education program shall be given a wallet card with site "rules" and contact cell phone numbers, and a sticker to affix to their hard hat. Each shall sign a sheet attesting to completing the training program. All site workers will be required to complete the training prior to accessing the project.	1. Include measure in contract documents.	1. Contracting	1. Once	1. CVWD	CVWD	1.
	2. Implement WEAP including initial training for all workers and updated training for any new workers throughout the construction period.	2. Pre-construction and construction	2. Throughout construction, if applicable.	2. CVWD, Construction Contractor		2.
	3. Confirm training program documentation including wallet card, hard hat stickers and sign-in sheet.	3. Pre-construction and throughout construction	3. Throughout construction	3. CVWD. Construction Contractor		3.
Mitigation Measure CUL-2: Unanticipated Discovery of Cultural Resources In the event that cultural resources are unearthed during project construction, CVWD's construction inspector and/or a project archaeologist shall temporarily suspend all earth disturbing work within a 100-foot radius of the discovery. A qualified professional archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards for prehistoric and historic archaeologist, shall be retained to evaluate the significance of the find, and shall have the authority to modify the no- work radius as appropriate, using professional judgment. The following notifications shall apply, depending on the nature of the find: If the professional archaeologist determines that the find does not represent a cultural resource, work may resume immediately, and no agency notifications are required. If the professional archaeologist determines that the find does represent a cultural resource from any time period or cultural affiliation, they shall immediately notify CVWD's Construction Inspector and Environmental Services Department. CVWD shall consult on a finding of eligibility and implement appropriate treatment measures, and monitoring as needed if the find is determined to be eligible for inclusion in the National Register of Historic Places or California Register of Historical Resources. Work may not resume within the no-work radius until CVWD, through consultation as appropriate, determines that the site either: 1) is not eligible for the National Register of Historic Places or California Register of Historical Resources; or 2) that the treatment measures have been completed to its satisfaction.	1. Include measure in contract documents.	1. Contracting	1. Once	1. CVWD	CVWD	1.
	2. If resources are unearthed during construction, confirm work halted, qualified archaeologist was consulted on eligibility, and appropriate treatment measures and no- work buffers were implemented.	2. Construction	2. Throughout construction, if applicable.	2. CVWD, Construction Contractor		2.
	3. Consult on finding and implement treatment measures, if applicable.	3. Construction	3. Once	3. CVWD		3.

Mitigation Measure	Monitoring and Reporting Actions	Implementation Schedule	Monitoring Frequency	Responsible Party	Review and Approval by:	Verification: Status/ Date Completed/ Initials
Mitigation Measure CUL-3 Unanticipated Discovery of Human Remains Although there is no evidence to suggest the presence of human remains in the project area, their discovery is a possibility during project construction. If such an event did occur, the specific procedures outlined by the NAHC, in accordance with Section 7050.5 of the California Health and Safety Code and Section 5097.98 of the Public Resources Code, must be followed: <ol style="list-style-type: none"> All excavation activities within 100 feet of the remains will immediately stop, and the area will be protected with flagging or by posting a monitor or construction worker, to ensure that no additional disturbance occurs. The project owner or their authorized representative will contact the County Coroner. The coroner will have two working days to examine the remains after being notified in accordance with HSC 7050.5. If the coroner determines that the remains are Native American and are not subject to the coroner's authority, the coroner will notify NAHC of the discovery within 24 hours. The NAHC will immediately notify the Most Likely Descendant (MLD), who will have 48 hours after being granted access to the location of the remains to inspect them and make recommendations for their treatment. Work will be suspended in the area of the find until CVWD and the MLD approves the proposed treatment of human remains.	1. Include measure in contract documents.	1. Contracting	1. Once	1. CVWD	CVWD	1.
	2. If human remains are unearthed during construction, confirm work halted, County Coroner was notified and consulted. If applicable, notify the NAHC for recommended treatment of human remains.	2. Construction	2. Throughout construction, if applicable.	2. CVWD, Construction Contractor		2.
	3. Consult on finding and implement treatment measures, if applicable.	3. Construction	3. Once	3. CVWD		3.
Hazardous Materials and Hydrology and Water Quality						
Mitigation Measure HAZ-1: Construction General Permit and Stormwater Pollution Prevention Plan The project contractor is required to comply with the most current Construction General Permit (CGP) (Order No. 2009-0009- DWQ as amended by 2010-0014-DWQ and 2012-0006-DWQ). Compliance with the CGP involves the development and implementation of a project-specific Stormwater Pollution Prevention Plan (SWPPP). The required plan will identify the locations and types of construction activities requiring BMPs and other necessary compliance measures to prevent soil erosion and stormwater runoff pollution. A Notice of Intent (NOI) to implement a SWPPP must be submitted through the Stormwater Multiple Application and Report Tracking System (SMARTS), in which a Waste Discharge Identification (WDID) number will be issued. The SWPPP and WDID must be kept on-site and used during the life of the project.	1. Include measure in contract documents.	1. Contracting	1. Once	1. CVWD	CVWD	1.
	2. Confirm construction contractor has prepared a Stormwater Pollution Prevention Plan and obtained a Waste Discharge Identification number.	2. Pre-Construction	2. Once	2. Construction Contractor		2.
	3. Confirm construction contractor follows procedures in the Stormwater Pollution Prevention Plan.	3. Construction	3. Periodically throughout construction	3. Construction Contractor and CVWD		3.