



Final
**Initial Study/
Mitigated Negative Declaration,
Response to Comments, and
Mitigation Monitoring and
Reporting Program**

for the

**Thousand Palms Channel
Improvement Project**
(SCH No. 2025021223)

Prepared By:

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

With Assistance From:

Kimley-Horn and Associates, Inc.
3801 University Avenue, Suite 300
Riverside, CA 92501

June 2025

Table of Contents

1.0 INTRODUCTION 1-1

 1.1 Project Title 1-1

 1.2 Lead Agency 1-1

 1.3 Purpose of this Document..... 1-1

 1.4 Scope of this Document..... 1-1

 1.5 CEQA Process 1-2

 1.6 Impact Terminology 1-2

 1.7 Comments and Responses..... 1-2

 1.8 Mitigation Monitoring and Reporting Program (MMRP)..... 1-2

2.0 PROJECT DESCRIPTION 2-1

 2.1 Project Overview 2-1

 2.2 Project Purpose and Background..... 2-1

 2.3 Environmental Setting..... 2-4

 2.4 Existing Facilities and Conditions..... 2-10

 2.5 Proposed Project Description..... 2-10

 2.6 Project Construction 2-33

 2.7 Operation and Maintenance..... 2-34

 2.8 Permits and Approval Anticipated 2-34

 2.9 Comments Received on the Public Draft Initial Study..... 2-35

3.0 ENVIRONMENTAL CHECKLIST FORM 3-1

4.0 ENVIRONMENTAL ANALYSIS 4-1

 4.1 AESTHETICS..... 4-1

 4.2 AGRICULTURE AND FORESTRY RESOURCES..... 4-14

 4.3 AIR QUALITY 4-17

 4.4 BIOLOGICAL RESOURCES..... 4-27

 4.5 CULTURAL RESOURCES 4-33

 4.6 ENERGY 4-39

 4.7 GEOLOGY AND SOILS..... 4-41

 4.8 GREENHOUSE GAS EMISSIONS 4-47

 4.9 HAZARDS AND HAZARDOUS MATERIALS 4-51

 4.10 HYDROLOGY AND WATER QUALITY 4-55

 4.11 LAND USE AND PLANNING 4-59

4.12 MINERAL RESOURCES 4-60

4.13 NOISE..... 4-62

4.14 POPULATION AND HOUSING..... 4-66

4.15 PUBLIC SERVICES..... 4-67

4.16 RECREATION..... 4-70

4.17 TRANSPORTATION..... 4-71

4.18 TRIBAL CULTURAL RESOURCES 4-74

4.19 UTILITIES AND SERVICE SYSTEMS 4-77

4.20 WILDFIRE 4-81

4.21 MANDATORY FINDINGS OF SIGNIFICANCE 4-84

5.0 REPORT PREPARATION..... 5-1

5.1 Report Authors 5-1

5.2 References 5-2

Tables

Table 1-1: Thousand Palms Channel Improvement Project – Mitigation Monitoring and Reporting Program..... 1-4

Table 2-1: Construction Phasing..... 2-33

Table 2-2: Anticipated Permits and Approvals..... 2-35

Table 4.3-1: Ambient Air Quality Data 4-18

Table 4.3-2: Salton Sea Air Basin Attainment Status..... 4-19

Table 4.3-3: Construction Emissions..... 4-22

Table 4.3-4: Operational Emissions 4-23

Table 4.3-5: Equipment-Specific Grading Rates..... 4-24

Table 4.3-6: Localized Significance of Construction Emissions..... 4-24

Table 4.3-7: Localized Significance of Operational Emissions 4-25

Table 4.8-1: Construction-Related Greenhouse Gas Emissions 4-49

Table 4.8-2: Project-Related Greenhouse Gas Emissions 4-49

Table 4.13-1: Vibration Source Levels for Construction Equipment 4-63

Table 4.13-2: Reaction of People and Damage to Buildings from Continuous or Frequent Intermittent Vibration Levels 4-64

Figures

Figure 2-1: Regional Location Map 2-2
Figure 2-2: Project Vicinity Map 2-3
Figure 2-3: General Plan Land Use Designation Map..... 2-8
Figure 2-4: Zoning Map 2-9
Figure 2-5: Proposed Channel Improvements 2-13
Figure 2-6: Proposed Roadway Improvements..... 2-15
Figure 2-7: Temporary Shoofly Improvements..... 2-31
Figure 4-1: Project Site Photos 4-4

Appendices

Appendix A: Air Quality/Greenhouse Gas Modeling Data
Appendix B1: Biological Resources Assessment
Appendix B2: Aquatic Resources Delineation Report
Appendix B3: CVWD Shoofly Biological Survey Notes
Appendix C: Cultural Resources Assessment
Appendix D: Geotechnical Investigation
Appendix E: Assembly Bill 52 – Tribal Consultation Letters
Appendix F: Responses to Comments

Acronyms, Abbreviations, and Initialisms

AAC	All American Canal
AB	Assembly Bill
ABCI	Augustine Band of Cahuilla Indians
ACBCI	Agua Caliente Band of Cahuilla Indians
ALUC	Airport Land Use Commission
ALUCP	Airport Land Use Compatibility Plan
amsl	Above mean sea level
AQ	Air Quality
AQMP	Air Quality Management Plan
BACT	Best Available Control Technology
BIO	Biological Resource
BIOS	Biogeographic Information and Observation System
BMP	Best Management Practice
BOR	Bureau of Reclamation
CAAQS	California Ambient Air Quality Standards
CalEEMod	California Emissions Estimator Model
CalFire	California Department of Forestry and Fire Protection
CAP	Climate Action Plan
CARB	California Air Resources Board
CBC	California Building Code
CBI	Cahuilla Band of Indians
CBMI	Cabazon Band of Mission Indians
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CE	Categorical Exemption
CEQA	California Environmental Quality Act
CGP	Construction General Permit
CHRIS	California Historical Resources Information System
CNDDDB	California Natural Diversity Database

CNEL	Community Noise Equivalent Level
CH ₄	Methane
CO	Carbon Monoxide
CO ₂	Carbon Dioxide
CRA	Cultural Resources Assessment
CRHR	California Register of Historic Resources
CUL	Cultural Resources
CVMSHCP	Coachella Valley Multiple Species Habitat Conservation Plan
CVSC	Coachella Valley Storm Channel
CVWBC	Coachella Valley Wild Bird Center
CVWD	Coachella Valley Water District
CY	Cubic yards
DOC	Department of Conservation
DPM	Diesel Particulate Matter
DPR	Department of Parks and Recreation
DRD	Desert Recreation District
DSUSD	Desert Sands Unified School District
DTSC	Department of Toxic Substances Control
EIC	Eastern Information Center
EIR	Environmental Impact Report
EO	Executive Order
F	Fahrenheit
FEMA	Federal Emergency Management Agency
FHSZ	Fire Hazard Severity Zone
FRAP	Fire and Resource Assessment Program
FTA	Federal Transit Administration
GHG	Greenhouse Gas
GPS	Global Positioning System
HAZ	Hazards and Hazardous Materials
H ₂ S	Hydrogen Sulfide

HUC	Hydrologic Unit Code
I	Interstate
IID	Imperial Irrigation District
IS	Initial Study
IWA	Indio Water Authority
LCBCCI	Los Coyotes Band of Cahuilla and Cupeno Indians
LFT	Linear foot
LST	Localized Significance Threshold
LUST	Leaking Underground Storage Tank
L _v	Vibration Velocity Level
M	Meter
MBMI	Morongongo Band of Mission Indians
MGD	Million Gallons per Day
MLD	Most Likely Descendant
MM	Mitigation Measure
MMRP	Mitigation Measure Reporting Program
MND	Mitigated Negative Declaration
Mph	Miles per Hour
MRZ	Mineral Resource Zone
MTCO _{2e}	Metric Tons of Carbon Dioxide Equivalents
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NEPA	National Environmental Policy Act
ND	Negative Declaration
NO ₂	Nitrogen Dioxide
N ₂ O	Nitrous Oxide
NO _x	Nitrogen Oxides
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places

O ₃	Ozone
OS	Open Space
OSHA	Occupational Safety and Health Administration
Pb	Lead
PM ₁₀	Particulate matter of 10 microns in diameter or less
PM _{2.5}	Particulate matter of 2.5 microns in diameter or less
ppm	Parts per Million
PPV	Peak Particle Velocity
PRC	Public Resources Code
QTFYR	Quechan Tribe of the Fort Yuma Reservation
RBCI	Ramona Band of Cahuilla Indians
RCFD	Riverside County Fire Department
REMAP	Riverside Extended Mountain Area Plan
ROG	Reactive Organic Gasses
RWQCB	Regional Water Quality Control Board
SCAQMD	South Coast Air Quality Management District
SB	Senate Bill
SBLI	Soboba Band of Luiseno Indians
SHPO	State Historic Preservation Office
SIP	State Implementation Plan
SLF	Sacred Lands File
SO ₂	Sulfur Dioxide
SoCalGas	Southern California Gas Company
SOI	Secretary of Interior
SR	State Route
SRA	State Responsibility Area
SRBMI	Santa Rosa Band of Mission Indians
SSAB	Salton Sea Air Basin
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board

TAC	Toxic Air Contaminants
TMDCI	Torres Martinez Desert Cahuilla Indians
TNPBMI	Twenty-Nine Palms Band of Mission Indians
USACE	United States Army Corps of Engineers
USGS	United States Geologic Survey
VdB	Vibration decibels
VDECS	Verified Diesel Emission Control Strategy
VHFHSZ	Very High Fire Hazard Severity Zone
VMT	Vehicle Miles Traveled
VOC	Volatile Organic Compounds
VSD	Valley Sanitary District
WOS	Waters of the State
WOUS	Water of the United States
WRSC	Whitewater River Stormwater Channel
WSC	Whitewater Storm Channel
WWTP	Wastewater Treatment Plant
µg/m ³	micro gram per cubic meter

1.0 INTRODUCTION

1.1 Project Title

Thousand Palms Channel Improvement Project (Project)

1.2 Lead Agency

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

Lead Agency Contact:

William Patterson, Environmental Services Program Supervisor
Phone: (760) 398-2651; Email: wpatterson@cvwd.org

1.3 Purpose of this Document

Coachella Valley Water District (CVWD) has prepared this Initial Study (IS) to evaluate the potential environmental impacts related to implementation of the Thousand Palm Channel Improvement Project (Project), which includes constructing a conveyance facility intended to receive floodwaters from the North Indio Hills and Thousand Palms areas. To this point, the Project would improve the Thousand Palms Channel (Channel) from the Sun City Shadow Hills development located north of Madison Street to the confluence with the Coachella Valley Stormwater Channel (CVSC). The Project would extend from Sun City Shadow Hills to the CVSC in the City of Indio, Riverside County, California.

CVWD is the lead agency under the California Environmental Quality Act (CEQA) for the Project. CEQA requires that the lead agency prepare an Initial Study (IS) to determine whether an Environmental Impact Report (EIR), Negative Declaration (ND), or Mitigated Negative Declaration (MND) is needed. CVWD has prepared this IS to evaluate the potential environmental consequences associated with the Project, and to disclose 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.

Furthermore, the Bureau of Reclamation (BOR) is the lead agency under the National Environmental Protection Act (NEPA). The BOR will be completing a categorical exclusion (CE) under NEPA. While this CEQA document will not serve as the CE under NEPA, it will be utilized in support of the BOR's CE under NEPA.

1.4 Scope of this Document

This IS/MND has been prepared in accordance with CEQA (as amended) (Public Resources Code §21000 et. seq.), the 2023 State CEQA Guidelines (California Code of Regulations, Title 14, Chapter 3, §15000 et. seq.), and CVWD's Local CEQA Guidelines (2024). CEQA Guidelines §15063 describes the requirements for an IS and §15070-15075 describe the process for the preparation of an MND. Where appropriate, this document makes reference to either the CEQA Statute or State CEQA Guidelines (as amended in December 2018). This IS/MND contains all of the contents required by CEQA, which includes a project description, a description of the environmental setting, potential environmental impacts, mitigation measures for any significant effects, consistency with plans and policies, and names of preparers.

The assessment provided in **Section 4.0** is based on technical reports and scientific studies prepared for the Project and supplemented with other public information sources, as provided in the list of references.

the Project would have a significant effect on the environment; and that the MND reflects the lead agency's independent judgment and analysis (State CEQA Guidelines §15074).

1.6 Impact Terminology

The scope of the environmental resource areas is listed above in **Section 1.4**. The level of significance for each resource area uses CEQA terminology as specified below:

- **No Impact.** No adverse environmental consequences have been identified for the resource or the consequences are negligible or undetectable.
- **Less than Significant Impact.** Potential adverse environmental consequences have been identified. However, they are not adverse enough to meet the significance threshold criteria for that resource. No mitigation measures are required.
- **Less than Significant with Mitigation Incorporated.** Adverse environmental consequences that have the potential to be significant but can be reduced to less than significant levels through the application of identified mitigation strategies that have not already been incorporated into the proposed project.
- **Potentially Significant.** Adverse environmental consequences that have the potential to be significant 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. If any potentially significant impacts are identified, an EIR must be prepared to meet the requirements of CEQA.

1.7 Comments and Responses

Several Tribal Governments have been provided the opportunity to comment on the Project and the Cultural Resources Assessment prepared for the Project pursuant to Assembly Bill 52. Their consultation and revisions made pursuant to Assembly Bill 52 are detailed in Section 4.18 of this Draft IS/MND. Additionally, pursuant to CEQA Guidelines §15073, this Draft IS/MND shall be available for a public review period. Subsequently, the Draft IS/MND shall be made available to the Lead Agency for consideration for adoption pursuant to CEQA Guidelines §15074 and will be provided all comments made on the Draft IS/MND during the public review period. Any and all comments received will be considered by the Lead Agency prior to rendering a decision on approval or denial of the project. Responses to comments shall be provided at the discretion of the Lead Agency.

1.8 Mitigation Monitoring and Reporting Program (MMRP)

CEQA requires that when a lead agency adopts an MND, it shall prepare a mitigation monitoring and reporting program for all required mitigation measures (CEQA Guidelines §15097). This MMRP describes the monitoring and reporting program for mitigation measures adopted by CVWD to avoid or substantially reduce impacts related to the Thousand Palm Channel Improvement 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. The 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.

Mitigation Monitoring Requirements

A mitigation monitoring checklist has been developed for the Project and is intended for use by CVWD, as lead agency and designated monitoring entity for the Project. The checklist, presented as **Table 1-1**, summarizes the mitigation requirements for the Project, anticipates timing, and identifies responsible parties for ensuring implementation of each mitigation measure.

Table 1-1: Thousand Palms Channel Improvement Project – Mitigation Monitoring and Reporting Program

Mitigation Measures	Monitoring and Reporting Actions	Implementation Schedule	Monitoring Frequency	Responsible Party	Review and Approval by:	Verification: Status/Date Completed/Initials
<p>MM AQ-1: All off-road diesel-powered construction equipment greater than 50 horsepower meets California Air Resources Board Tier 4 Final off-road emissions standards or incorporate CARB Level 3 Verified Diesel Emission Control Strategy (VDECS). Requirements for Tier 4 Final equipment and the option for Level 3 VDECS shall be included in applicable bid documents and successful contractor(s) must demonstrate the ability to supply such equipment. A copy of each unit's Best Available Control Technology (BACT) documentation (certified tier specification or model year specification), and CARB or SCAQMD operating permit (if applicable) shall be provided to the CVWD at the time of mobilization of each applicable unit of equipment.</p>	<ol style="list-style-type: none"> 1. Include in applicable bid documents. 2. Contractor(s) must demonstrate the ability to supply said equipment. 3. Determine commercial availability of said equipment. 	<ol style="list-style-type: none"> 1. Bid notification 2. Pre-Construction 3. Pre-Construction 	<ol style="list-style-type: none"> 1. Once 2. Once prior to construction 3. Once prior to construction 	<ol style="list-style-type: none"> 1. Contractor(s) 2. CVWD 3. CVWD 	CVWD	<ol style="list-style-type: none"> 1. _____ 2. _____ 3. _____
<p>MM BIO-1: <u>To the greatest extent feasible, the Project will avoid construction activities during the peak nesting season (February 1 through September 15). Regardless of the time of year, nesting bird surveys shall be performed by a qualified avian biologist no more than 3 days prior to all vegetation removal or ground-disturbing activities throughout all portions of the Project. 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 preliminarily 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. Construction activities may not occur inside the established buffers, which shall remain on-site until a qualified biologist determines the young have fledged or the nest is no longer active. For sensitive bird species, such as federal and/or California state listed and candidate species, and raptors, 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 shall determine the recommended monitoring frequency for other avian species based on the nest location, species, and its tolerance to disturbance. The qualified biologist has the authority to stop work if nesting pairs exhibit signs of disturbance. If construction (including ground-disturbing activities and vegetation trimming and/or removal) would occur during the nesting bird season (raptors: 1 January to 30 June; non-corvids: 1 February through 15 September), a qualified biologist shall conduct preconstruction nesting bird surveys within 30 days of construction start-up and continuing weekly up to three days before start-up. The survey area shall include the project area (disturbance footprint) and a surrounding 300-foot buffer area. Active bird nests shall be protected by installation of temporary physical barriers that define a buffer area of 100 feet surrounding each nest. Buffer size may be reduced or increased based on the bird species present and on the advice of the qualified biologist (e.g., smaller buffer for songbirds, larger buffer for raptors). In no case shall buffers be less than 50 feet. No construction work, equipment, or personnel shall enter the buffer area. Protective buffers shall remain in place until the biologist determines that the nest(s) are no longer active and the chicks have permanently fledged (left the nest) and a second nesting attempt has not begun.</u></p>	<ol style="list-style-type: none"> 1. Include measure in contract documents. 2. Avoid construction between 1 January February to 15 September. 3. Confirm a qualified biologist conducted pre-construction nesting bird and raptor surveys and submitted a report of survey results within the appropriate time frame, and established a no-work buffer zone, as appropriate. 4. Confirm construction is avoided in the no-work buffer zone until biologist determines that the nest is inactive. 	<ol style="list-style-type: none"> 1. Contracting 2. Construction 3. Pre-construction 4. Construction <p>OR</p>	<ol style="list-style-type: none"> 1. Once 2. Once 3. Once, within 3 days prior to construction vegetation removal or ground-disturbing activities, or if construction re-starts 4. Continuously throughout construction, if applicable <p>OR</p>	<ol style="list-style-type: none"> 1. CVWD 2. Construction Contractor 3. CVWD, Construction Contractor 4. Construction Contractor <p>OR</p>	CVWD	<ol style="list-style-type: none"> 1. _____ 2. _____ 3. _____ 4. _____ <p>OR</p>
<p>MM BIO-2: <u>Focused burrowing owl surveys shall be conducted by a qualified biologist in accordance with the Staff Report on Burrowing Owl Mitigation (2012 or most recent version) prior to ground-disturbing activities. If burrowing owls are detected during the focused surveys, the qualified biologist and Project proponent shall prepare a Burrowing Owl Avoidance and Monitoring Plan that shall be submitted to CDFW for review and approval prior to commencing Project activities. The Burrowing Owl Avoidance and Monitoring Plan shall describe proposed avoidance and monitoring actions, including measures necessary to avoid take of burrowing owl individuals, nests, and eggs. The Burrowing Owl Avoidance and Monitoring Plan shall include the number and location of occupied burrow sites (occupied site means at least one burrowing owl or its sign has been observed within the last three years; may be indicated by owl sign including feathers, pellets, prey remains, eggshell fragments, or excrement at or near a burrow entrance or perch site), acres of burrowing owl habitat that will be impacted, details of site monitoring, and details on proposed buffers and other avoidance measures.</u></p> <p><u>For all segments of Project construction, 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 repeated when there is a pause in construction of more than 30 days. 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</u></p>	<ol style="list-style-type: none"> 1. Include measure in contract documents. 2. <u>Confirm a qualified biologist conducted focused burrowing owl surveys and, if burrowing owls are detected, submitted a Burrowing Owl Avoidance and Monitoring Plan within the appropriate time frame, and established a no-work buffer zone, as appropriate. Avoid construction between 1 February to 15 September.</u> 3. Confirm a qualified biologist conducted pre-construction burrowing owl surveys and submitted a report of survey results within the appropriate <p>OR</p>	<ol style="list-style-type: none"> 1. Contracting 2. <u>Pre-Construction</u> 3. Pre-construction 4. Construction <p>OR</p>	<ol style="list-style-type: none"> 1. Once 2. <u>Prior to vegetation removal or ground-disturbing activities for all phases of the Project. Once</u> 3. <u>No less than 14 days prior to start of Project-related activities and within 24 hours prior to ground disturbance for all phases of the Project and when there is a pause in construction of more than 30 days. Once, within 3</u> <p>OR</p>	<ol style="list-style-type: none"> 1. CVWD 2. CVWD, Construction Contractor 3. CVWD, Construction Contractor 4. Construction Contractor <p>OR</p>	CVWD	<ol style="list-style-type: none"> 1. _____ 2. _____ 3. _____ 4. _____ <p>OR</p>

Mitigation Measures	Monitoring and Reporting Actions	Implementation Schedule	Monitoring Frequency	Responsible Party	Review and Approval by:	Verification: Status/Date Completed/Initials
owl nests, buffers of appropriate distances will be established based on the planned level of disturbance and the time of year, consistent with the Staff Report on Burrowing Owl Mitigation (2012 or most recent version). Project activities within these established buffers shall be immediately halted. If construction is to occur during 1 February to 15 September, burrowing owl surveys will be conducted. Burrowing Owl surveys will be completed following the CDFW 2012 Staff Report on Burrowing Owl Mitigation. Any located burrowing owls or potential burrows (burrows with openings > 4 inches) will be reported to CDFW via CNDDDB online reporting system.	time frame, and established a no-work buffer zone, as appropriate. 4. Confirm construction is avoided in the no-work buffer zone until biologist determines that the burrow is inactive.		days prior to construction, or if construction re-starts 4. Continuously throughout construction, if applicable			
MM CUL-1: If archaeological resources are exposed during ground disturbing activities (i.e., clearing, grubbing, etc.) construction, work in the immediate vicinity of the find must stop until a qualified archaeologist retained by CVWD can evaluate the significance of the find. Construction activities may continue in other areas. If the discovery proves significant under CEQA (14 CCR 15064.5[f]; PRC 21082), additional work such as testing, or data recovery may be warranted.	1. Include measure in contract documents. 2. If resources are unearthed during ground disturbing activities construction, confirm work was halted and the qualified archaeologist was consulted on eligibility, and appropriate treatment measures and no-work buffers were implemented. 3. Consult on finding and implement treatment measures, if applicable.	1. Contracting 2. <u>During ground disturbing activities Construction</u> 3. <u>During ground disturbing activities Construction</u>	1. Once 2. <u>During ground disturbing activities Throughout construction, if applicable</u> 3. Once	1. CVWD 2. CVWD, Construction Contractor 3. CVWD	CVWD	1. _____ 2. _____ 3. _____
MM CUL-2: To avoid impacts to any undiscovered cultural resource, all Project-related ground disturbing activities shall be monitored by a qualified Native American monitor from a local Native American tribe(s) affiliated with cultural resources in the Project area, or as identified in the project specific Tribal Monitoring Agreement. The Native American monitor(s) shall be authorized to halt construction in the area of the find until the find can be assessed and appropriately handled in accordance with the Cultural Resources Monitoring and Treatment Plan. Construction may continue in other parts of the Project Alignment. In the event that a cultural resource is discovered, a qualified archaeologist shall support evaluation of the resource.	1. Retain a Native American monitor(s).	1. <u>During ground disturbing activities construction</u>	1. <u>During ground disturbing activities construction</u>	1. CVWD	CVWD	1. _____
MM CUL-3: To provide for the appropriate treatment and disposition of any discovered cultural resources, prior to the initiation of any ground disturbing activities a Cultural Resources Monitoring and Treatment Plan (CRMTP) shall be prepared and enforced during project construction. The CRMTP shall include provisions for: qualifications of key staff, actions subject to monitoring, monitoring protocols, provisions for evaluating and treating cultural materials, and reporting requirements. The CRMTP shall be consistent with the Secretary of the Interior's Standards and Guidelines for Archaeological Documentation: California Office of Historic Preservation (OHP) Archaeological Resources Management, and include a monitoring plan, research design, and data recovery and treatment plan. If the qualified archaeologist determines a recovered resource is significant and avoidance or preservation in place is infeasible, the recovered resource shall be cleaned, identified, catalogued, analyzed, and prepared for curation at an appropriate repository with permanent retrievable storage to allow for additional research in the future. Site records or site record updates (as appropriate) shall be prepared and submitted to the South Coast Information Center as a permanent record of the discovery.	1. Prepare a CRMTP prior to the construction of the Project.	1. Prior to construction	1. Once	1. CVWD	CVWD	1. _____
MM CUL-4: Prior to any construction activities, grading limits will be flagged to demarcate exclusion zones for the avoidance of ground disturbing activities to resource P-33-007425 and resource P-33-001768, to the extent feasible. Pending any conflicts regarding property ownership, the nine previously recorded artifacts within the project area shall be <u>handled</u> collected and treated in accordance with the Cultural Resources Monitoring and Treatment Plan. <u>For potential collection activities, no artifacts must leave federal land. Artifacts observed during monitoring may generally be left where they are or reburied within the Project footprint with a shovel. For significant discoveries, consultation with the SHPO and local Native American tribe(s) affiliated with cultural resources in the Project area would be required.</u>	1. Demarcate exclusion zones. 2. Collect the nine artifacts prior to construction.	1. Prior to construction 2. Prior to construction	1. Once; maintain as needed 2. Once	1. CVWD 2. CVWD	CVWD	1. _____ 2. _____
MM-CUL-5: A Qualified Archaeologist, defined as one who meets the Secretary of the Interior's Professional Qualification Standards in archaeology, shall conduct a cultural resources Worker Environmental Awareness Program (WEAP) training for all on-site project personnel. The training shall be conducted prior to the commencement of construction activities. The training shall include information about the cultural resources	1. Conduct a cultural resources Worker Environmental Awareness Program (WEAP) training.	1. Prior to construction	1. Once	1. CVWD	CVWD	1. _____

Mitigation Measures	Monitoring and Reporting Actions	Implementation Schedule	Monitoring Frequency	Responsible Party	Review and Approval by:	Verification: Status/Date Completed/Initials
identified in the project area and the monitoring protocols. A record of project personnel that received the training shall be provided to CVWD.						
<p>MM HAZ-1: Hazardous Materials Management and Spill Control Plan. Prior to construction the construction contractor is required to submit to CVWD Engineering Services Department a Hazardous Materials Management Spill Control Plan that includes a project-specific contingency plan for hazardous materials and waste operations, including precautions taken in the proximity of a school zone. The plan shall be applicable to construction activities and shall establish policies and procedures according to applicable codes and regulations, including but not limited to the California Building and Fire Codes, and federal and California OSHA regulations. Elements of the Plan shall include, but not be limited to the following:</p> <ul style="list-style-type: none"> A discussion of hazardous materials management, including delineation of hazardous material storage areas, access and egress routes, waterways, emergency assembly areas, and temporary hazardous waste storage areas. Notification and documentation of procedures. Spill control and countermeasures, including employee spill prevention/response training and a health and safety plan. Equipment maintenance; and Child safety and school operations. 	<ol style="list-style-type: none"> Include measure in contract documents. Confirm Construction Contractor has prepared a Hazardous Materials Management and Spill Control Plan. Confirm Construction Contractor follows procedures in the Hazardous Materials Management and Spill Control Plan. 	<ol style="list-style-type: none"> Contracting Pre-Construction Construction 	<ol style="list-style-type: none"> Once Once Periodically throughout construction 	<ol style="list-style-type: none"> CVWD Construction Contractor Construction Contractor 	CVWD	<ol style="list-style-type: none"> _____ _____ _____
<p>MM TRA-1: Prior to construction, CVWD shall require its Construction Contractor to implement an approved Traffic Control Plan, to the satisfaction of the CVWD construction inspector and the County. The components of the Traffic Control Plan shall include:</p> <ul style="list-style-type: none"> Identification of construction staging site locations and potential road closures, Alternate routes of traffic detours, including emergency response contact information, Planned routes for construction-related vehicle traffic (haul routes), and Identification of alternative safe routes to maintain pedestrian safety during construction. <p>CVWD's Project Manager shall coordinate with the police, fire, and other emergency services to alert these entities about potential construction delays, project alignment, and construction schedule. CVWD shall minimize the duration of disruptions/closures to roadways and critical access points for emergency services. The Traffic Control Plan shall provide for traffic control measures including flag persons, warning signs, lights, barricades, and cones to provide safe passage of vehicular, bicycle and pedestrian traffic and access by emergency responders. All construction personnel shall be briefed on project-specific circumstances relating to worker and public safety with regards to traffic control. The Traffic Control Plan shall be submitted to CVWD's Project Manager and construction inspector for review and approval prior to construction.</p> <p>CVWD's Construction Inspector shall have the construction schedule and Traffic Control Plan reviewed by the County of Riverside to ensure construction of the proposed project does not conflict with construction activities associated with other construction projects that may be occurring at the same time in the vicinity.</p>	<ol style="list-style-type: none"> Include measure in contract documents. Confirm Construction Contractor has prepared a Traffic Control Plan to the satisfaction of the CVWD Project Manager, CVWD Construction Inspector and the County. Confirm CVWD's Project Manager has coordinated with emergency services about construction. Confirm CVWD Construction Inspector has the Traffic Control Plan reviewed by the County of Riverside. 	<ol style="list-style-type: none"> Contracting Pre-Construction Pre-Construction Pre-Construction 	<ol style="list-style-type: none"> Once Once Once Once 	<ol style="list-style-type: none"> CVWD CVWD, Construction Contractor CVWD Project Manager CVWD Construction Inspector 	CVWD	<ol style="list-style-type: none"> _____ _____ _____ _____

2.0 PROJECT DESCRIPTION

2.1 Project Overview

The Project is located in the central portion of the greater Coachella Valley within the City of Indio, Riverside County, California. A regional overview map is shown in **Figure 2-1**. The Community of Bermuda Dunes, a Census-Designated Place, is located approximately 0.8 mile west of the Project. Access to the site is via Interstate 10, Indio Boulevard, Madison Street, and Avenue 42; see **Figure 2-2: Project Vicinity Map**.

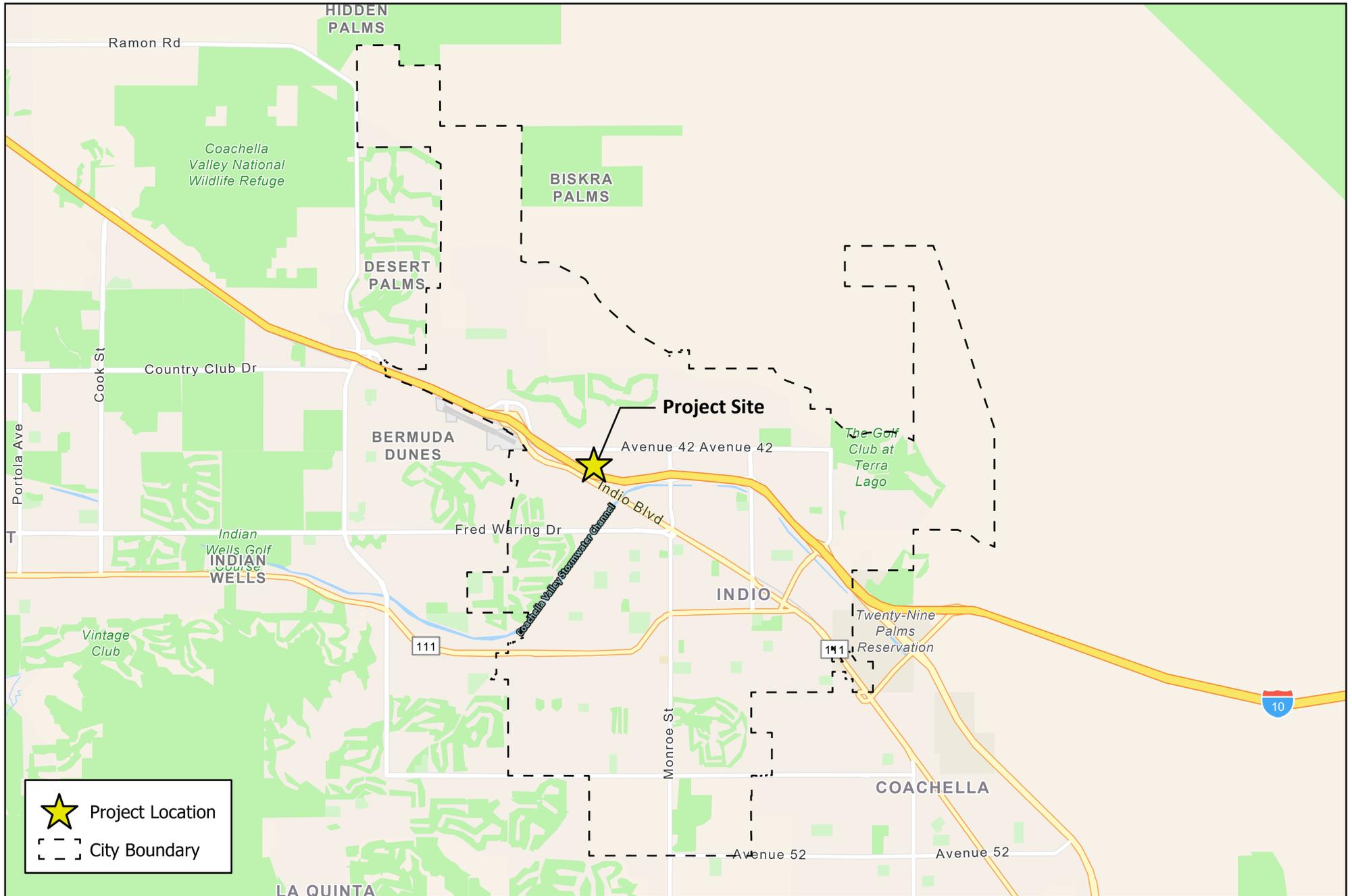
The Project would include constructing the last conveyance facility intended to receive regional flood flows from the North Indio Hills and Thousand Palms areas. To this point, the Project would improve the Channel from the Sun City Shadow Hills development located north of Madison Street to the confluence with the CVSC. The Project would improve approximately 5,750 feet of the existing Channel. The Project would improve the existing earthen Channel with concrete sidewalls, improve the Avenue 42 channel crossing with 10 side-by-side 14-foot by 9-foot box culverts as a single structure to allow stormwater flows underneath the roadway and limit overtopping, as well as improve the roadways of Avenue 42 and Madison Street where the Channel crosses these roadways. Improvements to the roadways include vertical profile changes, repaving, shoulder improvements, and drainage improvements. The Project would help to meet the Federal Emergency Management Agency's (FEMA) and CVWD's requirement for flood control and stormwater conveyance of regional flows into the CVSC. The stormwater flows would ultimately discharge into the Salton Sea.

2.2 Project Purpose and Background

CVWD is charged with managing the CVWD service area's stormwater and drainage flows. In its existing condition, the Project is an earthen bottom channel with earthen side slopes. The reach of the Channel downstream of Madison Street is an incised section. Upstream of Madison Street the channel sections have had earthen berms constructed. These berms are not FEMA certified levees. Additionally, there are two at-grade roadway crossings at Madison Street and Avenue 42, as well as a bridge crossing under Interstate 10 (I-10). In its existing condition, the Channel is unable to accommodate the 100-year stormwater flows throughout the entirety of the Channel. The portion of the Channel north of the Avenue 42 crossing does not have the capacity to convey the 100-year flowrate of 16,836 cubic feet per second. The main objectives of the Project are to:

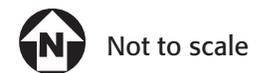
- Provide adequate accommodation for 100-year storm event;
- Remove at-grade roadway crossings, where feasible, to limit risk to vehicles and passengers during storm events;
- Provide FEMA-certified levees and berms;
- Provide scouring protection along the length of the Channel; and
- Improve berms with drop structures to provide adequate flood control infrastructure.

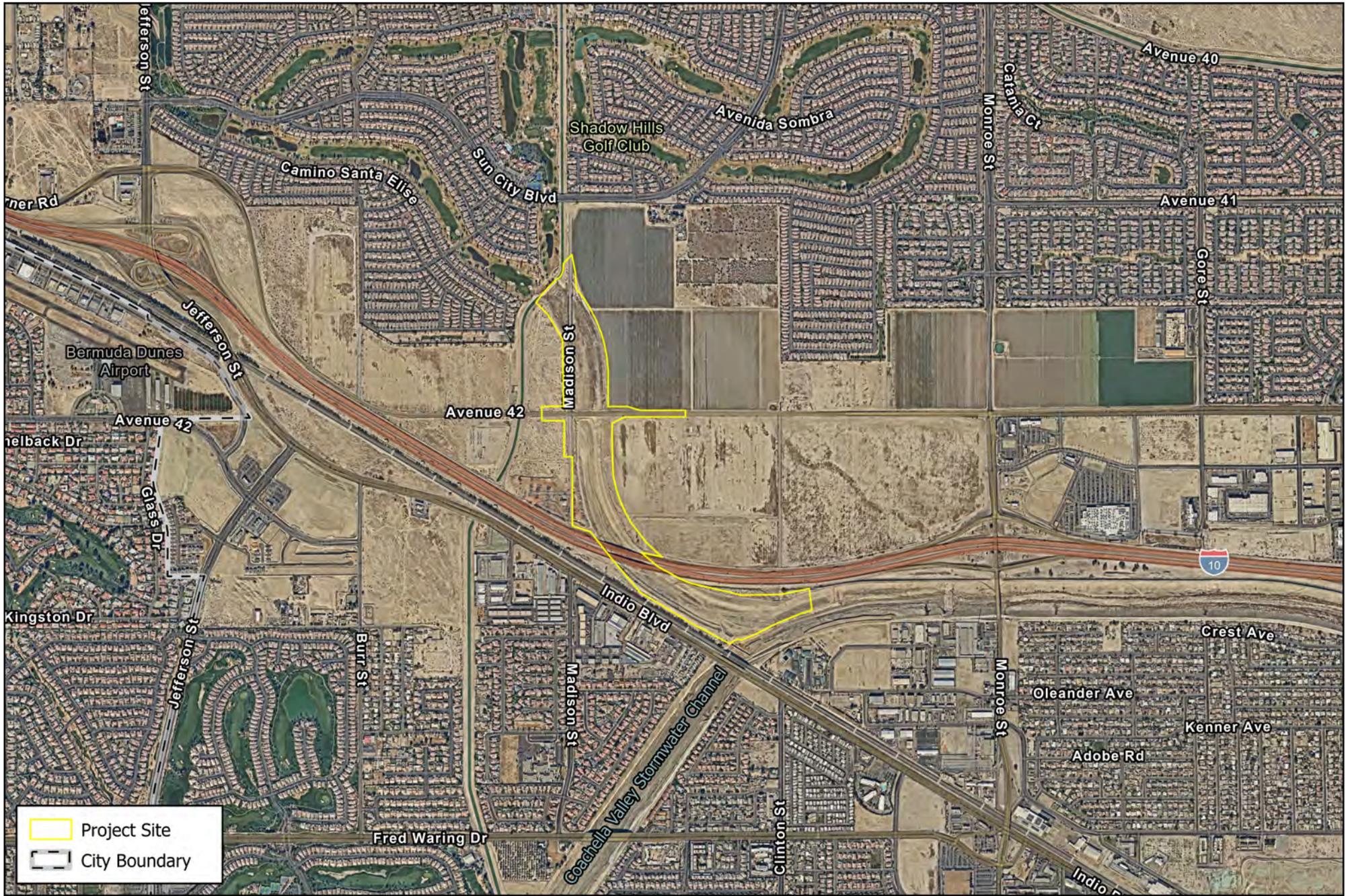
The Project would improve the Channel to accommodate 100-year storm flows, remove one at-grade crossing at Avenue 42, and install drop structures to provide adequate flood control through the control of flow velocities and energy. After Project implementation, an at-grade crossing would remain at Madison Street, however, the vertical alignment of Madison Street would be improved to better accommodate storm flows. The Project would benefit CVWD and the region by providing adequate flood control that would limit the risk to public safety and property.



Source: ESRI, 2024

FIGURE 2-1: Regional Location Map
Thousand Palms Channel Improvement Project





Source: Nearthmap, 2024

FIGURE 2-2: Project Vicinity Map
 Thousand Palms Channel Improvement Project

2.3 Environmental Setting

The Project is within the City of Indio (City), Riverside County, surrounded primarily by vacant land and agricultural land. At its northern extent, the Project abuts a golf course associated with the Sun City Shadow Hills residential community. The Channel runs south-southeast, intersecting Madison Street, Avenue 42, and I-10, before it converges with the CVSC at its southern extent. Single-family residential development associated with Sun City Shadow Hills is located near the Project's northern extent and commercial and mobile-home residential is located at the Project's southern extent on the south side of Indio Boulevard. Also located near the Project's southern extent is the Coachella Valley Mosquito and Vector Control District complex. See **Figure 2-2: Project Vicinity Map** for existing development.

City of Indio

Indio is the oldest City within the Coachella Valley and was incorporated in 1930. Indio lies approximately 14 miles northwest of the Salton Sea, 23 miles southeast of Palm Springs, and 77 miles east of Riverside. The City is bounded by unincorporated Riverside County to the north, the City of La Quinta to the southwest, the unincorporated community of Bermuda Dunes to the west, and the City of Coachella to the south and east. The City encompasses approximately 33 square miles. Predominant land uses within the City include Suburban Residential, Connected Neighborhood, Regional Commercial, Workplace Employment District, and Parks and Open Space. According to **Figure 2-3: General Plan Land Use Designation Map** the Project site is designated as Parks and Open Space and as Workplace Employment District. According to **Figure 2-4: Zoning Map**, the Project site is zoned as Park and Open Space (OS) and Specific Plan/Project Master Plan (SP/PMP).

Bermuda Dunes

This unincorporated community area is located in the vicinity of north Indio near of the intersection of Washington Street and I-10, north of the cities of Indian Wells, Indio, and La Quinta. The area has good access to I-10 and State Route 111 (SR-111), and community sewer and water service is available. The area south of I-10 is characterized by medium density residential and resort-type development, with limited higher density development along Washington Street and 42nd Street. The area north of I-10 includes Sun City Palm Desert, a senior citizen residential community, mobile-home subdivisions, rural residential uses, agricultural areas, a recreational vehicle park, an industrial park, and Fringe-toed Lizard habitat.¹

Western Coachella Valley Area Plan

The Project is within the Western Coachella Valley Area Plan as designated by Riverside County.² Western Coachella Valley is surrounded by the mountainous area of the Riverside Extended Mountain Area Plan (REMAP) to the west and southwest, The Pass Area Plan to the west, the Eastern Coachella Valley Area Plan to the east, and San Bernardino County and the Joshua Tree National Park to the northeast. The Western Coachella Valley Area Plan boundary encompasses eight cities: Desert Hot Springs, Palm Springs, Cathedral City, Rancho Mirage, Palm Desert, Indian Wells, La Quinta, and Indio.³

Whitewater River Stormwater Channel (WRSC) / Coachella Valley Stormwater Channel

The WRSC/CVSC is the primary drainage course in the area, spanning the length of the Coachella Valley. The Whitewater River, in the San Gorgonio Wilderness, is perennial through its reach prior to reaching the Coachella Valley floor near Whitewater. The flow quickly percolates into the groundwater basin or is

¹ Ibid. Page 9.

² Riverside County. 2021. *Western Coachella Valley Area Plan*. https://planning.rctlma.org/Portals/14/genplan/2021/WCVAP_6.29.21.pdf?ver=2021-07-01-164904-547 (accessed April 2022).

³ Ibid. Page 6.

diverted for use and joins the ephemeral WRSC at this location. The WRSC joins the Coachella Valley Stormwater Channel near Point Happy in La Quinta, The CVSC transects the valley floor in a southeast direction to the Salton Sea, receiving perennial artificial wastewater flow and agricultural drainage flow for the lower 17 miles.⁴

The Project site is in the northern portion of the “City of Indio-Whitewater River” watershed (HUC12: 181002010705). The Project would receive ephemeral flows directly from the “Town of Biskra Palms-Whitewater River” watershed (HUC12: 181002010609); specifically, from surface water/sheet flow from the Shadow Hills Golf Club.⁵ These flows would be directly through the Channel and flow into the CVSC.

Farmland

The majority of the land surrounding the Project is identified as Urban and Built-Up Land, Other Land, Prime Farmland, or Farmland of Local Importance.⁶ The Project site itself is identified as Other Land.

Climate

The City is located northwest of the Salton Sea and, like the rest of Coachella Valley, has a desert regime, with large daily and seasonal fluctuations in temperature and relatively high annual average temperatures. The mean annual maximum and minimum daily temperatures for the City are 89 and 58 degrees Fahrenheit (°F), respectively. The average annual precipitation is 3.3 inches, falling primarily from December to February. Winter low temperatures average 41°F, and summer high temperatures average 105°F.⁷

Topographic Features

The Channel conveys ephemeral stormwater flows generally from the northwest to the southeast. Existing elevations along the planned improvement area at the northernmost end range between 22 and 24 feet above mean sea level (amsl), and elevations on the southernmost end range between zero (0) and six (6) feet amsl. Existing elevations range from zero (0) to 10 feet amsl at the location where the Channel ties into the CVSC. According to historic aerials available on publicly available websites, the Channel and the CVSC have existed since prior to the year 1953.⁸

Hydrology

The Coachella Valley is protected from stormwater flooding primarily through conveyance to the WRSC/CVSC which runs primarily from north to south. The Channel currently outlets into the CVSC and would continue to do so after Project implementation. The Project is located in the Whitewater River Watershed (HUC8: 18100201), which drains the area from the San Bernardino Mountains to the Salton Sea (HUC8: 18100204).

The FEMA Flood Insurance Rate Map Numbers 06065C2232G and 06065C2251H designates the site as Zone A – an area subject to one percent annual-chance flood event. This flood is also referred to as the Base Flood. Zone A areas are inundated by the Base Flood with no Base Flood Elevations determined.⁹

⁴ Ibid. Page 6.

⁵ California State Water Resources Control Board. ND. *HUC Watersheds*. <https://gispublic.waterboards.ca.gov/portal/home/webmap/viewer.html?useExisting=1&layers=b6c1bab9acc148e7ac726e33c43402ee> (accessed December 2022).

⁶ California Department of Conservation. 2017. *California Important Farmland Finder*. <https://maps.conservation.ca.gov/DLRP/CIFF/> (accessed April 2022).

⁷ City of Indio. 2019. *FEIR for the City of Indio General Plan Update*. Page 4.3-1. <https://www.indio.org/home/showpublisheddocument/924/637874293008870000> (accessed April 2022).

⁸ Historic Aerials. ND. *Historic Aerials*. <https://www.historicaerials.com/viewer> (accessed April 2023).

⁹ FEMA. ND. *FEMA Flood Map Service Center*. <https://msc.fema.gov/portal/advanceSearch#searchresultsanchor> (accessed April 2022).

Geologic Features and Soils

The eastern Coachella Valley is traversed by the San Andreas fault, an active fault with a significant probability of earthquake activity. The Project site is located between the San Andreas Fault zone to the northeast and San Jacinto Fault zone to the southwest. There are also many other active/potentially active late Quaternary faults within a 100-kilometer (approximately 62-mile) radius of the Project. The most active or potentially active fault line is located approximately 2.5 miles away from the Project site.¹⁰

The Project site is located within the Coachella Valley, a pull-apart basin formed by extensional faulting and step-overs along the San Andreas fault zone. More than 3,000 feet of sediment have accumulated within the Coachella Valley in the last 0.5 million years since the extension began. Quaternary-age alluvial valley deposits underlie the Project site. The sediments consist of clays, silts, and sands which are derived from the Santa Rose Mountains to the west and the Little San Bernardino Mountains to the northeast. The Coachella Valley is considered to be part of the Colorado Desert geomorphic province which is bounded on the west by the Santa Rosa Mountains and the Peninsular Ranges province, and the north by the Transverse Ranges. The Colorado Desert extends beyond California to the east and south. The San Andreas fault is geologically mapped approximately 2 miles northeast of the Project site. Geothermal resources associated with the pull-apart basin are present near the southern area of the Salton Sea.

The Riverside County Liquefaction Susceptibility Map locates the Project site in an area of low and moderate susceptibility.¹¹

Groundwater

Groundwater was not encountered during field investigations as part of the Geotechnical Investigation prepared by Geocon West, Inc. for the Project. Borings were made to a depth of 51 feet beneath the existing ground surface. Historic shallow groundwater depths can range between approximately 74 feet and 125 feet below the existing ground surface in wells located within approximately 2 miles of the Project site.

Water will likely be present within the Channel and Project site during and following times of significant precipitation. Fluctuations in groundwater level may occur due to infiltration of water during and after precipitation events or due to irrigation, variations in ground surface topography, subsurface geologic conditions and structure, and other factors.

Wildfire

The Project site is located within a Local Responsibility Area for wildfire safety. The Project site is not designated as a Very High Fire Hazard Severity Zone (VHFHSZ) by CalFire. The nearest VHFHSZ is located approximately 9.5 miles to the southwest of the Project site.¹²

Conservation Areas

The Project area is not within a designated Conservation Area of the Coachella Valley Multiple Species Habitat Conservation Plan and Natural Community Conservation Plan (referred to as the CVMSHCP).¹³

¹⁰ California Geologic Survey. 2022. *Earthquake Zones of Required Investigation*. <https://maps.conservation.ca.gov/cgs/EQZApp/app/> (accessed November 2022).

¹¹ County of Riverside. 2019. *Riverside County Mapping Portal: Liquefaction*. <https://gisopendata-countyofriverside.opendata.arcgis.com/datasets/8b4d6c0ed6154902b03be41faebdf588/explore?location=33.744912%2C-116.243661%2C15.00> (accessed November 2022).

¹² California Department of Forestry and Fire Protection. 2022. *FHSZ Viewer*. <https://egis.fire.ca.gov/FHSZ/> (accessed November 2022).

¹³ Coachella Valley Conservation Commission. 2007. *Recirculated Final Coachella Valley Multiple Species Habitat Conservation Plan and Natural Community Conservation Plan: Figure 4-1: Conservation Areas*. https://cvmshcp.org/Plan-Documents/system_files/d4-1.pdf (accessed November 2022).

The closest conservation area of the CVMSHCP to the Project site is the East Indio Hills Conservation Area, approximately 1.5 miles to the northeast, at the City of Indio limits.

Air Basin

The Project area is located in the Coachella Valley Planning Area of the Salton Sea Air Basin, which is managed by the South Coast Air Quality Management District (SCAQMD). The basin is nonattainment for ozone (O₃) and respirable particulate matter (PM₁₀).

Night Sky

The entire proposed Project area is within Zone B of the Mount Palomar Nighttime Lighting Policy Area. According to County of Riverside Ordinance No. 655, Zone B is designated as all areas outside a 15-mile radius and within a 45-mile radius centered on the Palomar Observatory.

Transportation

Regional access to the Project site is provided by I-10, and bisects the Project site. The interchanges closest to the Project site that allow access to I-10 are at Monroe Street and Jefferson Street, east and west of the Project site, respectively. Local access to the Project site is provided by Avenue 42 in an east-west fashion.

There are no designated State Scenic Highways within or adjacent to the Project site. The nearest officially designated State Scenic Highway is SR-74 located approximately 8.2 miles southwest of the Project site.¹⁴

Airports

The nearest airport to the Project site is Crown Aero (Bermuda Dunes Airport). The Project site is located within Compatibility Zones B1, C, and D of the Bermuda Dunes Airport.¹⁵

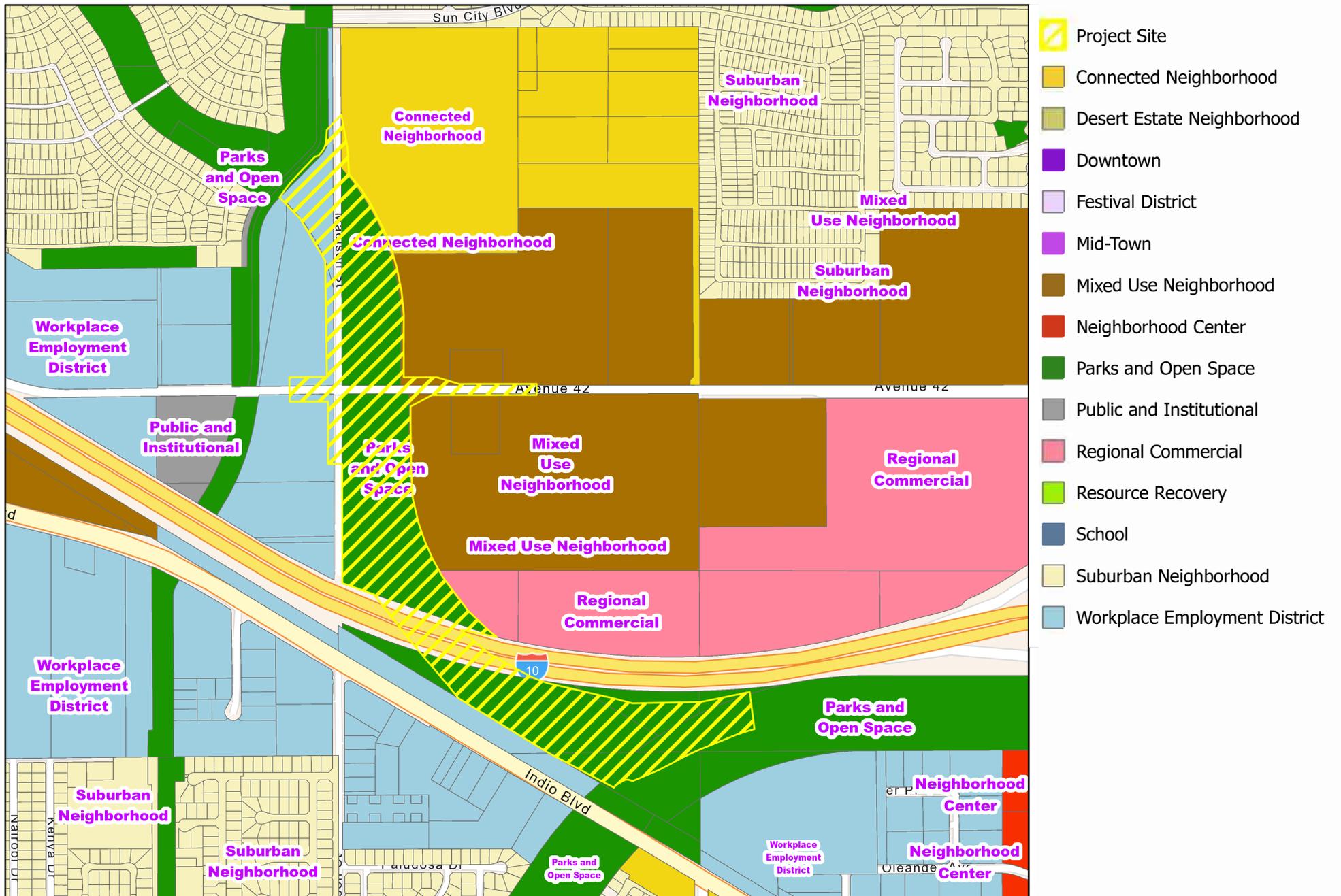
Utilities

CVWD provides domestic water, sanitation collections, non-potable water irrigation, groundwater replenishment, and stormwater flood control services to the region. The CVWD service area covers about 1,000 square miles and serves a population of about 300,000 residents.

Due to the nature of the Project, the Project would not require the use of domestic water services, sanitary sewer services, electrical services, or other public utilities. However, several utilities would be required to be relocated to accommodate the Project. These include, but are not limited to, an 18-inch irrigation water lateral, a 24-inch water line, underground telecommunications infrastructure (fiber optic), and natural gas.

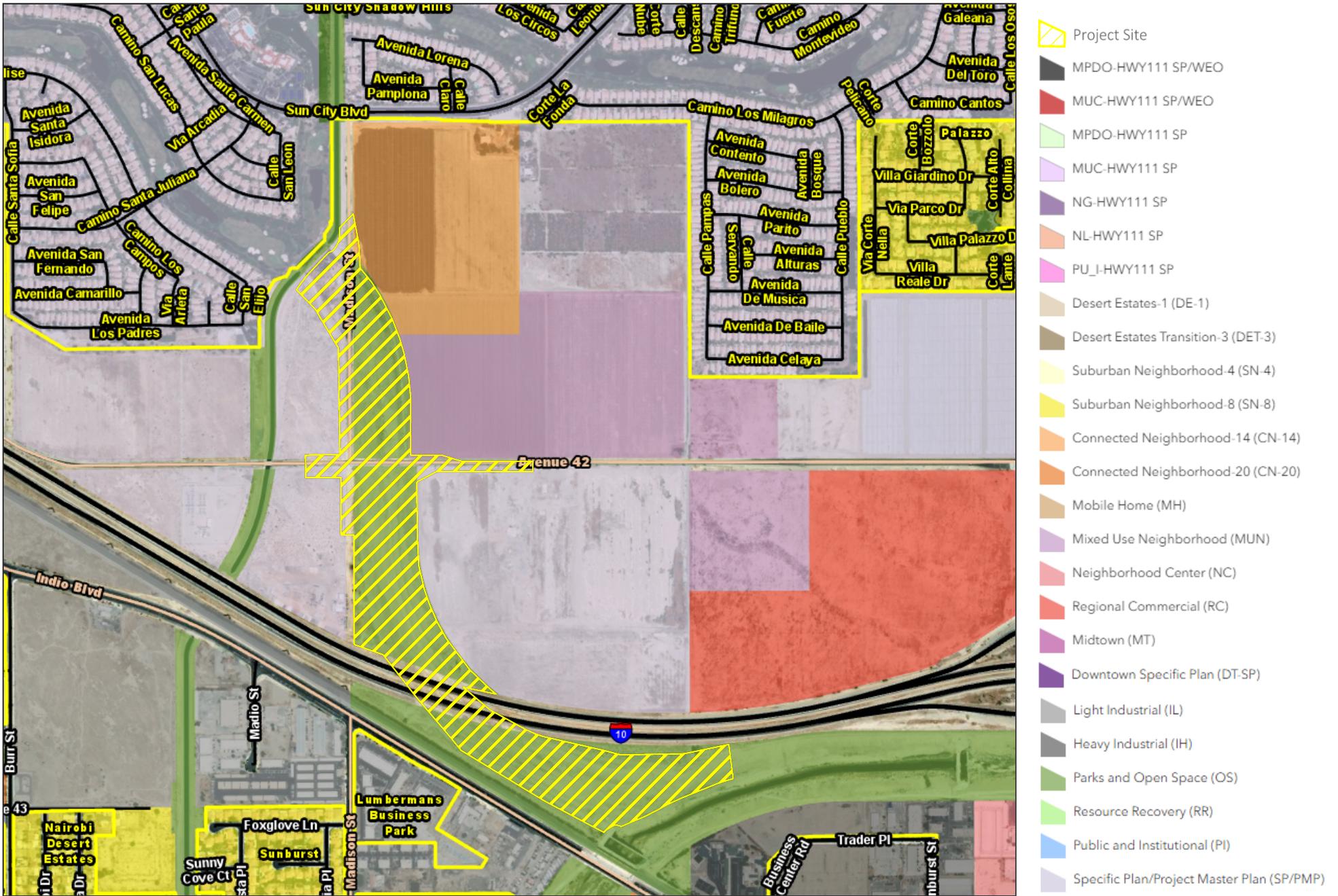
¹⁴ California Department of Transportation. 2022. *California State Scenic Highway System Map*. <https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aaca> (accessed November 2022).

¹⁵ Riverside County Airport Land Use Commission. 2004. *Riverside County Airport Land Use Compatibility Plan, Volume 1, Policy Document; Map BD-1*. <https://www.rcaluc.org/Portals/13/PDFGeneral/plan/newplan/07-%20Vol.%201%20Bermuda%20Dunes.pdf> (accessed November 2022).



Source: City of Indio, 2022

FIGURE 2-3: General Plan Land Use Designation Map
Thousand Palms Channel Improvement Project



Source: City of Indio, 2022

FIGURE 2-4: Zoning Map
 Thousand Palms Channel Improvement Project

2.4 Existing Facilities and Conditions

In its existing conditions, the Channel is an earthen bottom channel with earthen side slopes. The reach of the Channel downstream of Madison Street is an incised section. Upstream of Madison Street the channel sections have had earthen berms constructed. At the southern boundary of the Sun City Shadow Hills property (north of the Project site), the Channel crosses a buried siphon for the Coachella Canal. There are also at-grade crossings of Madison Street and Avenue 42, and a bridge crossing under I-10. The Channel joins the CVSC approximately 2,000 feet downstream of the I-10 bridge crossing. The total length of the Channel within the Project limits is approximately 5,750 feet.

2.5 Proposed Project Description

A layout map and conceptual site plan showing the location of the Project components is presented in **Figure 2-5** (see Section 2.1 Project Overview above). New infrastructure for the Project would consist of the following:

1. Concrete Side Slopes and Cutoff Walls;
2. Drop Structures; and
3. Roadway Improvements to Madison Street and Avenue 42.

2.5.1 Concrete Side Slopes and Cutoff Walls

Concrete side slopes would be constructed along either edge of the existing Channel. These side slopes would be constructed with a 1.5:1 slope. This slope would extend from the top of slope to the finish grade at the bottom of the channel. From the bottom of the channel, a cutoff wall would extend into the finish grade at a 1.5:1 slope. The overall height of the concrete side slopes and depth of the cutoff wall would vary along the length of the approximately 5,750-foot Channel. The heights of the concrete side walls would range from 6 to 18 feet above grade and reach depths of 14 to 31 feet below grade. As a result, grading and excavation would be required to accommodate the construction of the concrete side slopes and cutoff walls. Additionally, soil barriers over the tops of the concrete side walls would be constructed with 3:1 slopes. Approximately 467,000 cubic yards (CY) of cut is anticipated to occur with approximately 45,300 CY of backfill anticipated to occur for a net export of approximately 421,700 CY of soil. A specific soil export location has not been identified, however, for the purposes of this IS/MND, a hauling distance of 20 miles has been assumed. Soil export locations, reviewed and approved by CVWD, could include but are not limited to other land development projects, soil stockpile businesses, landfills, and others.

Concrete Side Slopes and Cutoff Walls Construction Methods

The Channel would be graded and excavated to allow for the construction of the concrete side slopes and cutoff walls. Forming boards and other concrete framing tools would be utilized to set the side slopes and cutoff walls before concrete is poured into the casts. These slopes and walls would be constructed according to the specifications identified in the final design construction drawings for the Project. After the concrete has cured for an appropriate amount of time, consisting of native onsite soils backfill would be placed at the bottom of the channel to the designed final grade. This backfill would range in depths from 14 to 31 feet, as identified earlier.

Typical concrete channel construction processes are described below:

Staging Area(s) – At various locations along the construction route, staging areas would be required to store construction equipment, and other construction-related material. Potential staging areas include vacant private and public land.

Surface Preparation – Surface preparation involves removing structures (such as fences or posts), pavement, and/or vegetation from the channel areas. Equipment may include jackhammers, pavement saws, graders, bulldozers, loaders, and trucks.

Channel Excavation/Shoring - A backhoe, excavator, and/or graders would be used to remove soil to accommodate concrete construction. Excavation would be deeper than the finish grade of the Channel in its proposed conditions, excavated material would be backfilled upon completion of concrete construction operations. Soils excavated from the channel, if of suitable quality, would be stockpiled alongside the trench or in staging areas for later reuse in backfilling the channel. Disposal options include use as cover material at sanitary landfills and use as “clean fill” at other sites.

Surface Restoration – After the concrete side slopes and cutoff walls are installed, the area disturbed during construction would be restored to the conditions that existed prior to construction. The bottom of the channel would be maintained to be void of vegetation, debris, trash, and other refuse.

2.5.2 Drop Structures

Three concrete drop structures would be installed to improve the Channel’s flood control abilities and would be constructed with concrete materials in a similar fashion to the concrete side slopes and cutoff walls. The most downstream drop structure (approximately 400 feet north of the southern boundary of the Project) would have a 20-foot-wide crest and would have 2:1 slope concrete faces. The upstream face would be entirely below grade. The downstream face would be approximately 50 feet tall with the top 20 feet existing above the proposed Channel invert. The most upstream drop structure would be located immediately upstream of the Avenue 42 crossing. This drop structure would have a 5-foot-wide crest and would have a 2:1 slope. Similarly, the upstream face would be entirely below grade, however, the entirety of the 8-foot-tall downstream face would be fully above grade. Refer to **Figure 2-5: Proposed Channel Improvements**.

2.5.3 Roadway Improvements

Currently, Madison Street and Avenue 42 cross the Channel at-grade and during storm events, stormwater overtops these roadways and may render them inaccessible during storms with depths of flow over 6 inches. The Project would re-align the vertical alignment of Madison Street and Avenue 42.

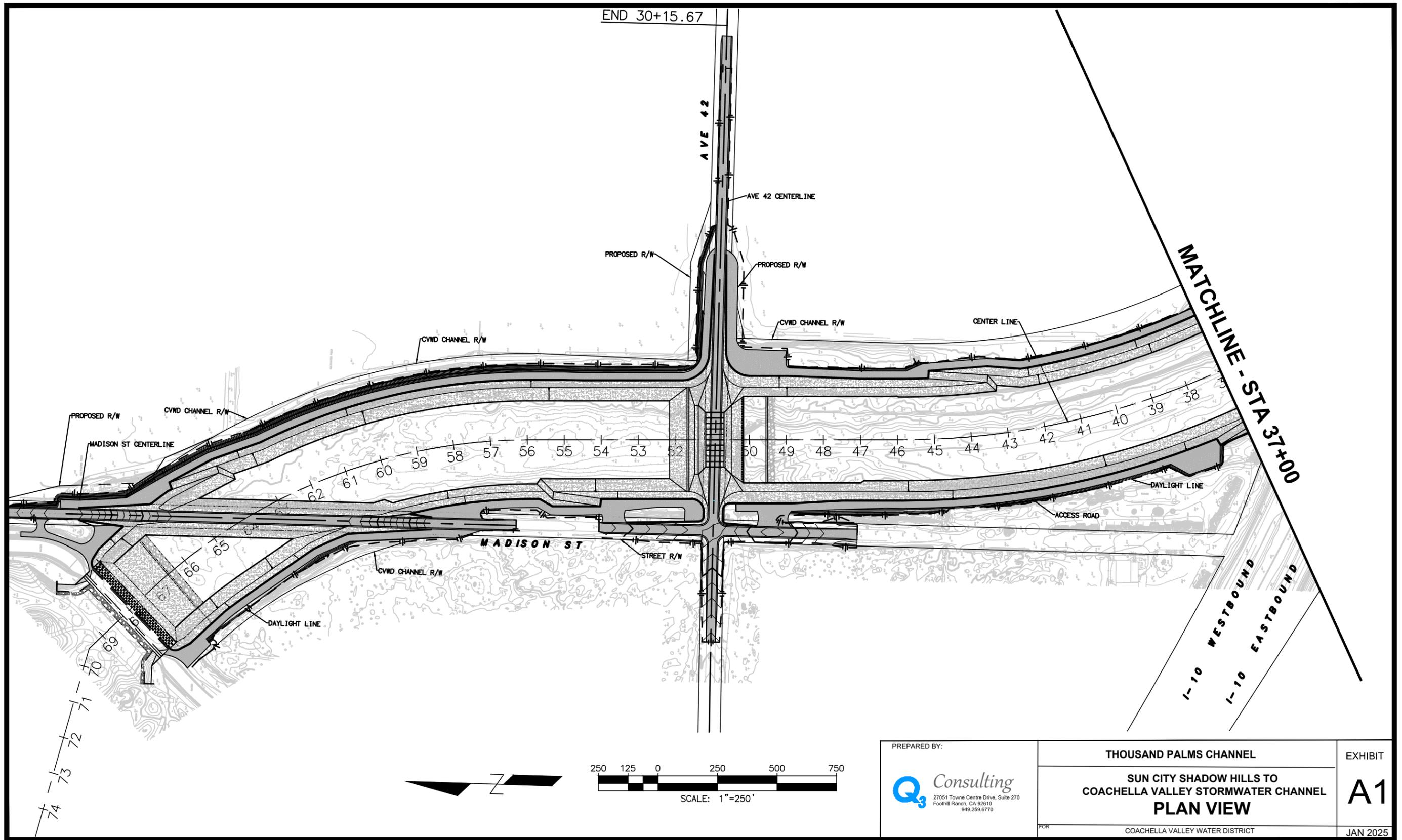
Avenue 42 would have 10 14-foot by 9-foot box culverts installed underneath to allow for stormwater flows under the roadway, thus changing it from an at-grade crossing with the Channel. These culverts would be designed to accommodate the 10-year storm. Construction would be consistent with typical concrete and roadway construction procedures. The Avenue 42 approaches into the Channel crossing would be re-graded to provide a more gradual descent into the Channel crossing. The western approach would be graded over 300 linear feet (LFT) to achieve a slope of approximately 2.6 percent into the Channel crossing. The eastern approach would be graded over 1,100 LFT to achieve a slope of approximately 2.4 percent into the Channel crossing. Avenue 42 would consist of two 12-foot lanes of traffic, one eastbound and one westbound, and would have 3-foot shoulders. In total, approximately 1,633 LFT of improvements would be made to Avenue 42.

Madison Street would remain as an at-grade crossing as it does not currently provide connectivity to roadways other than Avenue 42, nor is additional connectivity proposed as part of the Project. The vertical alignment would be shifted to allow for a small amount of detention on the upstream side of the Channel; however, during storm events which produce runoff, surface flows would over-top Madison Street. Improvements to Madison Street would occur in two locations, at the intersection of Madison Street and Avenue 42 and at the at-grade crossing on Madison Street with the Channel. Improvements would begin approximately 390 LFT south of Avenue 42 and end approximately 309 LFT north of Avenue 42.

Improvements would resume approximately 554 LFT north of Avenue 42 and end approximately 1,911 LFT north of Avenue 42. In total, approximately 2,078 LFT of improvements would occur on Madison Street. Madison Street would consist of two 12-foot travel lanes, one northbound and one southbound and would have 3-foot-wide shoulders. Refer to **Figure 2-6: Proposed Roadway Improvements**.

2.5.4 Utility Relocations and Improvements

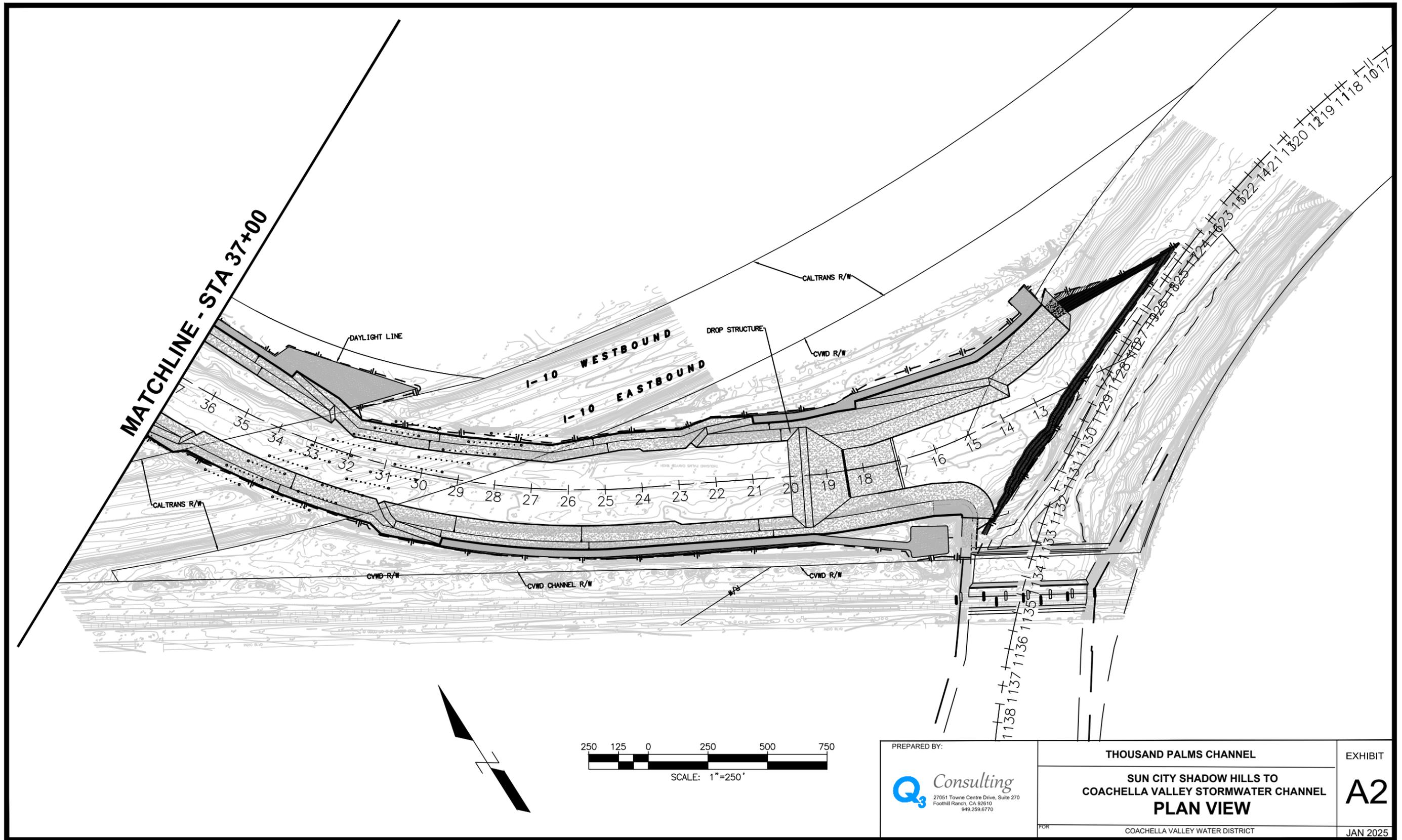
There are existing Imperial Irrigation District (IID) power poles running east-west along the southern portion of the Avenue 42 right-of-way. These poles are wooden poles and would be replaced with steel. The steel poles would allow for greater spans between poles, lowering the total number of poles needed when compared to the existing conditions. The permanent locations of the steel poles would remain within the right-of-way of Avenue 42. However, in order to accommodate the Channel improvements, and maintain power service to all IID customers, a shoofly would need to be constructed. A shoofly is a temporary short routing of a linear service, such as a road, railroad, water main, or power line, around a small site or obstruction. This shoofly would be constructed by IID and would exist outside of the existing Avenue 42 right-of-way. The shoofly would be deconstructed once the permanent steel poles are constructed and energized. All improvements, permanent and temporary, would be constructed, maintained, and operated by IID. Refer to **Figure 2-7: Temporary Shoofly Improvements**.



Source: Q3 Consulting, 2025

FIGURE 2-5: Proposed Channel Improvements
Thousand Palms Channel Improvement Project

Not to scale



Source: Q3 Consulting, 2025

FIGURE 2-5: Proposed Channel Improvements
Thousand Palms Channel Improvement Project

PREPARED BY:  Q3 Consulting 27051 Towne Centre Drive, Suite 270 Foothill Ranch, CA 92610 949.289.6770	THOUSAND PALMS CHANNEL	EXHIBIT
	SUN CITY SHADOW HILLS TO COACHELLA VALLEY STORMWATER CHANNEL PLAN VIEW	A2
FOR COACHELLA VALLEY WATER DISTRICT		JAN 2025

Not to scale

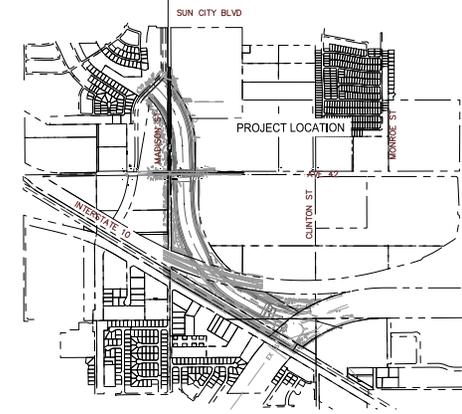
IN THE CITY OF INDIO, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA
COACHELLA VALLEY WATER DISTRICT
 THOUSAND PALMS CHANNEL IMPROVEMENT PROJECT FROM SUN CITY SHADOW HILLS
 TO THE CVSC

BASIS OF BEARING

THE BEARINGS ARE BASED ON CALIFORNIA COORDINATE SYSTEM ZONE 6, THE BEARING N83°22'13.7"E BETWEEN SOPAC CORS STATIONS P1N1 (NCS PID A85082) AND TMAP (NCS PID AJ 1930), WAS USED AS THE BASIS OF BEARINGS FOR THIS SURVEY.

BENCHMARK

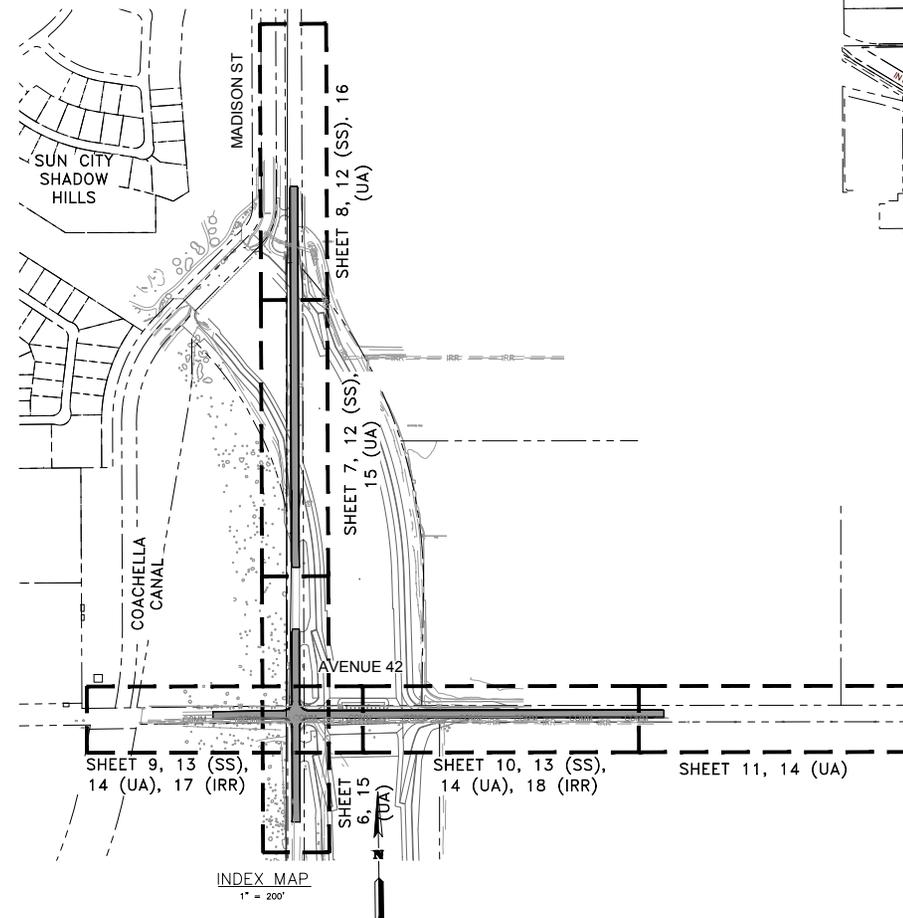
ON NATIONAL GEODETIC SURVEY BENCHMARKS DX 0705 AND DX 3452 WERE USED AS THE BASIS OF ELEVATIONS ON THIS SURVEY.



GENERAL NOTES

1. NO PERMANENT STRUCTURES OR TREES WITHIN CVWD AND/OR USBR EASEMENTS. CVWD WILL NOT BE RESPONSIBLE FOR DAMAGE OR REPLACEMENT OF ANY SURFACE IMPROVEMENT, INCLUDING BUT NOT LIMITED TO DECORATIVE CONCRETE, LANDSCAPING, CURB, GUTTER, SIDEWALKS, PLANTERS, GATES AND RELATED IMPROVEMENT INSTALLED WITHIN CVWD AND/OR USBR EASEMENTS.

Sheet List Table	
Sheet Number	Sheet Title
1	TITLE SHEET
2	TYPICAL SECTIONS
3	TYPICAL SECTIONS
4	TYPICAL SECTIONS
5	TYPICAL SECTIONS
6	MADISON ST STA 45+00 TO 55+00
7	MADISON ST STA 55+00 TO 65+00
8	MADISON ST STA 65+00 TO 68+00
9	AVENUE 42 STA 20+00 TO 30+00
10	AVENUE 42 STA 30+00 TO 40+00
11	AVENUE 42 STA 40+00 TO 50+00
12	SIGNING AND STRIPING PLANS
13	SIGNING AND STRIPING PLANS
14	UTILITY ADJUSTMENT PLANS- AVE 42
15	UTILITY ADJUSTMENT PLANS- MADISON ST
16	UTILITY ADJUSTMENT PLANS- MADISON ST
17	IRRIGATION PLAN
18	IRRIGATION PLAN



UTILITY COMPANIES

WATER & SEWER	COACHELLA VALLEY WATER DISTRICT	(760)-398-2651
IRRIGATION	IMPERIAL IRRIGATION	(760)-339-9232
GAS	SOCAL GAS	(714)-412-2578
TELEVISION	SPECTRUM	(760)-679-5294
TELEPHONE	FRONTIER	(323)-342-5552
SEWER	VALLEY SANITARY DIST	(760)-238-5400

INDEX MAP
 1" = 200'

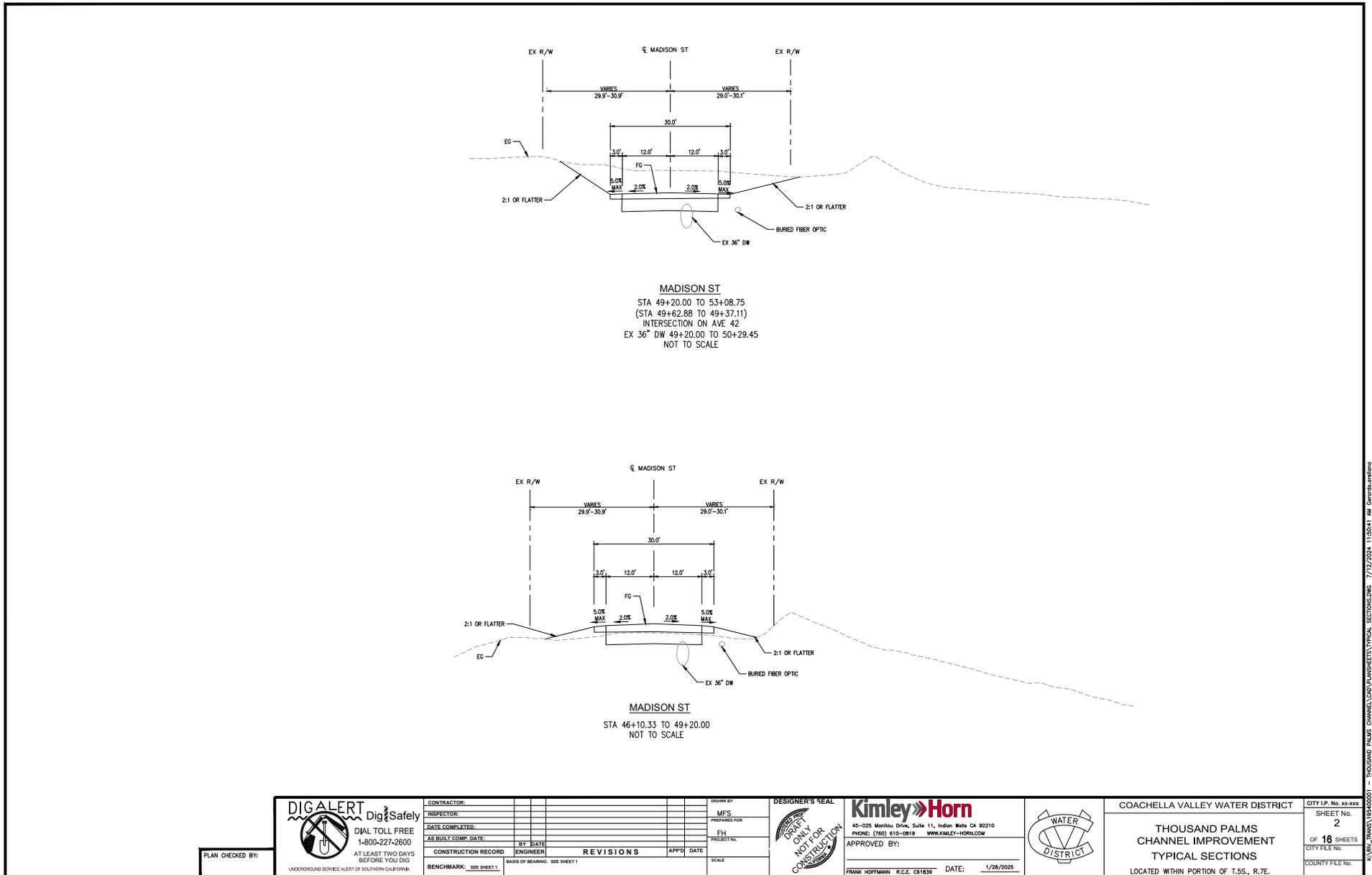
<p>DIAL TOLL FREE 1-800-227-2600 AT LEAST TWO DAYS BEFORE YOU DIG UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA</p>	CONTRACTOR: _____ INSPECTOR: _____ DATE COMPLETED: _____ AS BUILT COMP. DATE: _____	DRAWN BY: MFS PREPARED FOR: FH PROJECT NO.: _____ SCALE: _____	<p>DESIGNER'S SEAL</p>	<p>45-025 Maritou Drive, Suite 11, Indio, CA 92210 PHONE: (760) 810-0819 www.kimley-horn.com</p>	<p>COACHELLA VALLEY WATER DISTRICT</p>	CITY I.P. No. xx-xxx SHEET No. 1 OF 18 SHEETS CITY FILE No. _____ COUNTY FILE No. _____
	CONSTRUCTION RECORD BENCHMARK: SEE SHEET 1	REVISIONS APP'D DATE	APPROVED BY: FRANK HOFFMANN, R.C.E. 081639 DATE: 1/28/2025	TITLE SHEET LOCATED WITHIN PORTION OF T.5S., R.7E.		

Source: Kimley-Horn and Associates, Inc., 2025

FIGURE 2-6: Proposed Roadway Improvements
 Thousand Palms Channel Improvement Project

Not to scale





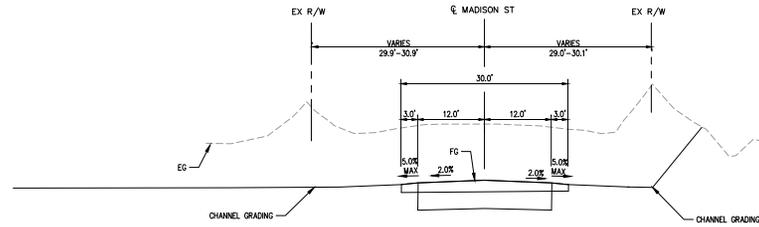
K:\N\...TRANS\1944001 - THOUSAND PALMS CHANNEL\DWG\BUSHSHETS\TYPICAL SECTIONS.DWG 7/12/2024 11:52:41 AM dave@kimley-horn.com

Source: Kimley-Horn and Associates, Inc., 2025

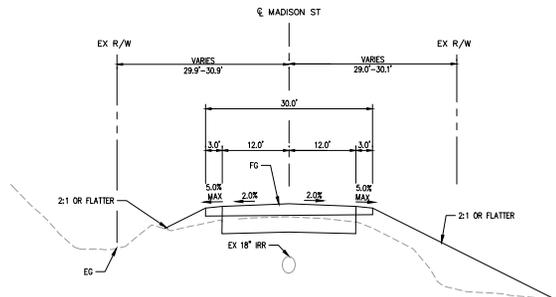
FIGURE 2-6: Proposed Roadway Improvements
 Thousand Palms Channel Improvement Project

Not to scale





MADISON ST
 STA 58+25.00 TO STA 67+10.00
 NOT TO SCALE



MADISON ST
 STA 55+32.11 TO STA 58+25
 STA 67+10 TO STA 69+11.21
 NOT TO SCALE

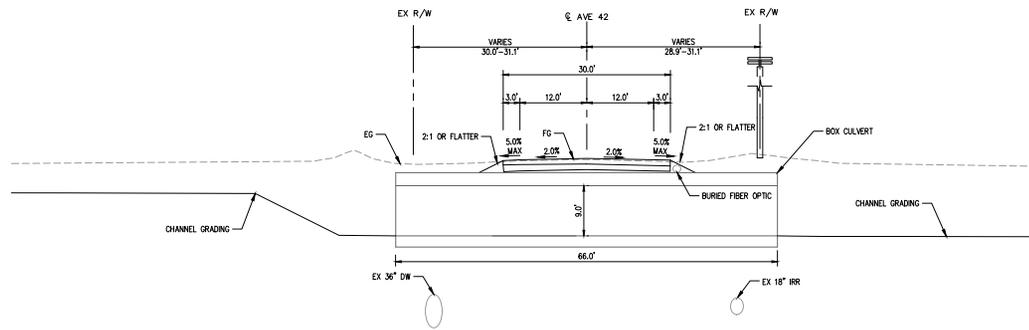
<p>DIGALERT Dig Safely DIAL TOLL FREE 1-800-227-2600 AT LEAST TWO DAYS BEFORE YOU DIG UNDERGROUND SERVICES ALERT OF SOUTHERN CALIFORNIA</p>	CONTRACTOR: INSPECTOR: DATE COMPLETED: AS BUILT COMP. DATE:	DRAWN BY: MFS PREPARED FOR: FH PROJECT NO.: SCALE:	DESIGNER'S SEAL 	<p>45-025 Marindu Drive, Suite 11, Indian Wells CA 92210 PHONE: (760) 610-0819 WWW.KIMLEY-HORN.COM</p>		COACHELLA VALLEY WATER DISTRICT THOUSAND PALMS CHANNEL IMPROVEMENT TYPICAL SECTIONS LOCATED WITHIN PORTION OF T.S.S., R.7E.	CITY LP. No. xxx-xxxx SHEET No. 3 OF 18 SHEETS CITY FILE No. COUNTY FILE No.
	PLAN CHECKED BY: CONSTRUCTION RECORD BENCHMARK: SEE SHEET 1	BY DATE ENGINEER REVISIONS APPD DATE	BASE OF BEARING: SEE SHEET 1	APPROVED BY: FRANK HOFFMANN R.C.E. 081639 DATE: 1/28/2025	THOUSAND PALMS CHANNEL IMPROVEMENT TYPICAL SECTIONS 7/12/2024 11:58:41 AM Generated		

Source: Kimley-Horn and Associates, Inc., 2025

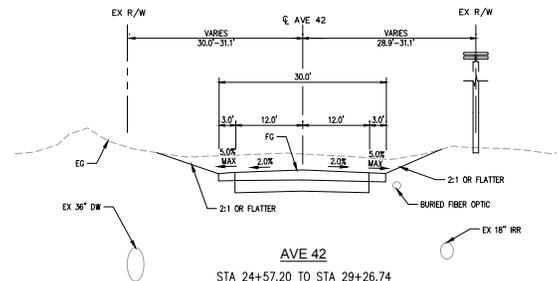
FIGURE 2-6: Proposed Roadway Improvements
 Thousand Palms Channel Improvement Project

Not to scale





AVE 42
STA 29+26.72 TO STA 30+77.43
NOT TO SCALE



AVE 42
STA 24+57.20 TO STA 29+26.74
NOT TO SCALE

<p>DIGALERT Dig Safely DIAL TOLL FREE 1-800-227-2600 AT LEAST TWO DAYS BEFORE YOU DIG UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA</p>	<p>CONTRACTOR:</p>	<p>INSPECTOR:</p>	<p>DATE COMPLETED:</p>	<p>AS BUILT COMP. DATE:</p>	<p>BY DATE</p>	<p>ENGINEER</p>	<p>REVISIONS</p>	<p>APPRO. DATE</p>	<p>SCALE</p>	<p>DRAWN BY MFS</p>	<p>DESIGNER'S SEAL PREPARED FOR FH PROJECT NO.</p>	<p>Kimley»Horn 45-025 Mariposa Drive, Suite 11, Indian Wells CA 92210 PHONE: (760) 615-0819 WWW.KIMLEY-HORN.COM</p>	<p></p>	<p>COACHELLA VALLEY WATER DISTRICT</p>	<p>CITY LP. No. 24-252</p>
	<p>PLAN CHECKED BY:</p>	<p>BENCHMARK: SEE SHEET 1</p>	<p>BASES OF BEARING: SEE SHEET 1</p>	<p>APPROVED BY: FRANK HOFFMANN R.C.E. 061839</p>	<p>DATE: 1/28/2025</p>	<p>THOUSAND PALMS CHANNEL IMPROVEMENT TYPICAL SECTIONS LOCATED WITHIN PORTION OF T.S.S., R.7E.</p>	<p>SHEET No. 4 OF 18 SHEETS CITY FILE NO. COUNTY FILE NO.</p>								

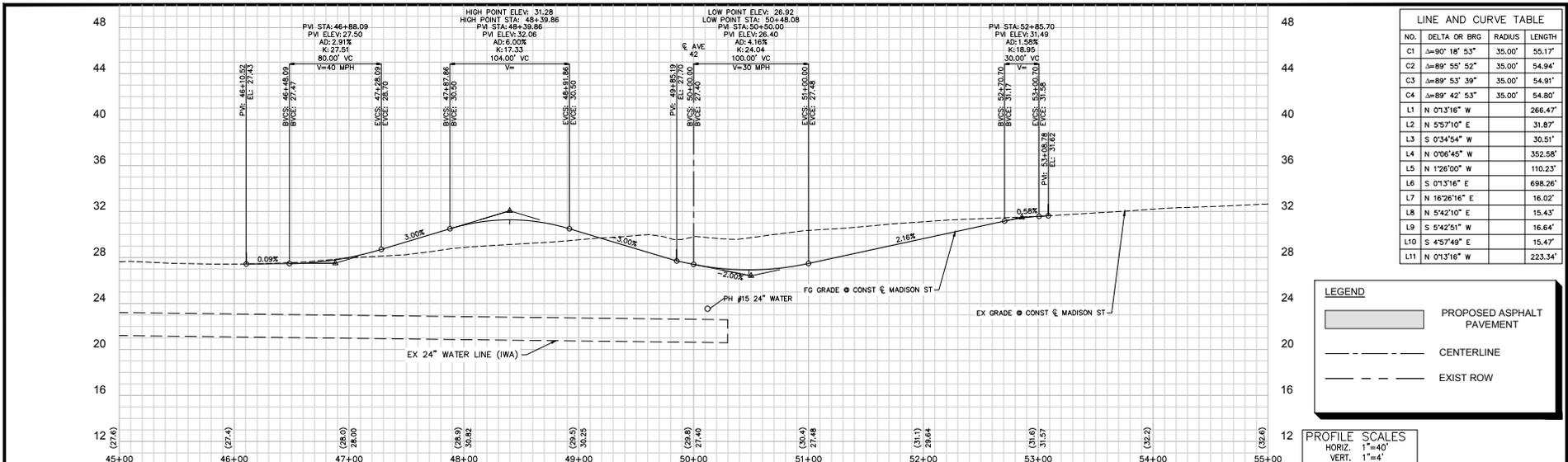
Source: Kimley-Horn and Associates, Inc., 2025

FIGURE 2-6: Proposed Roadway Improvements
Thousand Palms Channel Improvement Project

Not to scale

Kimley»Horn

E:\PROJECTS\THOUSAND PALMS CHANNEL\DWG\THOUSAND PALMS CHANNEL TYPICAL SECTIONS.DWG 7/17/2024 11:50:47 AM Generated

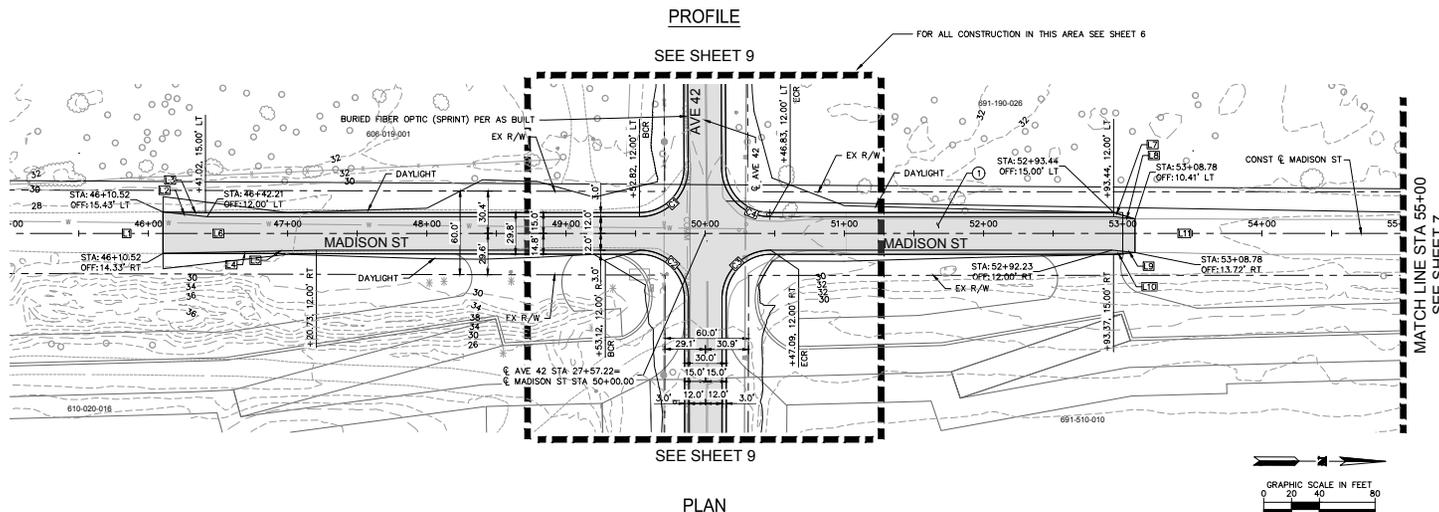


LINE AND CURVE TABLE			
NO.	DELTA OR BVC	RADIUS	LENGTH
C1	Δ=90° 18' 53"	35.00'	55.17'
C2	Δ=89° 55' 52"	35.00'	54.94'
C3	Δ=89° 53' 39"	35.00'	54.91'
C4	Δ=89° 42' 53"	35.00'	54.80'
L1	N 01°31'6" W		266.47'
L2	N 5°57'10" E		31.87'
L3	S 0°34'54" W		30.51'
L4	N 0°06'45" W		352.58'
L5	N 1°26'00" W		110.23'
L6	S 0°13'16" E		698.28'
L7	N 16°28'16" E		16.02'
L8	N 5°42'10" E		15.43'
L9	S 5°42'51" W		16.64'
L10	S 4°57'49" E		15.47'
L11	N 0°13'16" W		223.34'

LEGEND

- PROPOSED ASPHALT PAVEMENT
- CENTERLINE
- EXIST ROW

PROFILE SCALES
 HORIZ. 1"=40'
 VERT. 1"=4'



CONSTRUCTION NOTES

① CONSTRUCT ASPHALT CONCRETE PAVEMENT (TO BE DETERMINED).

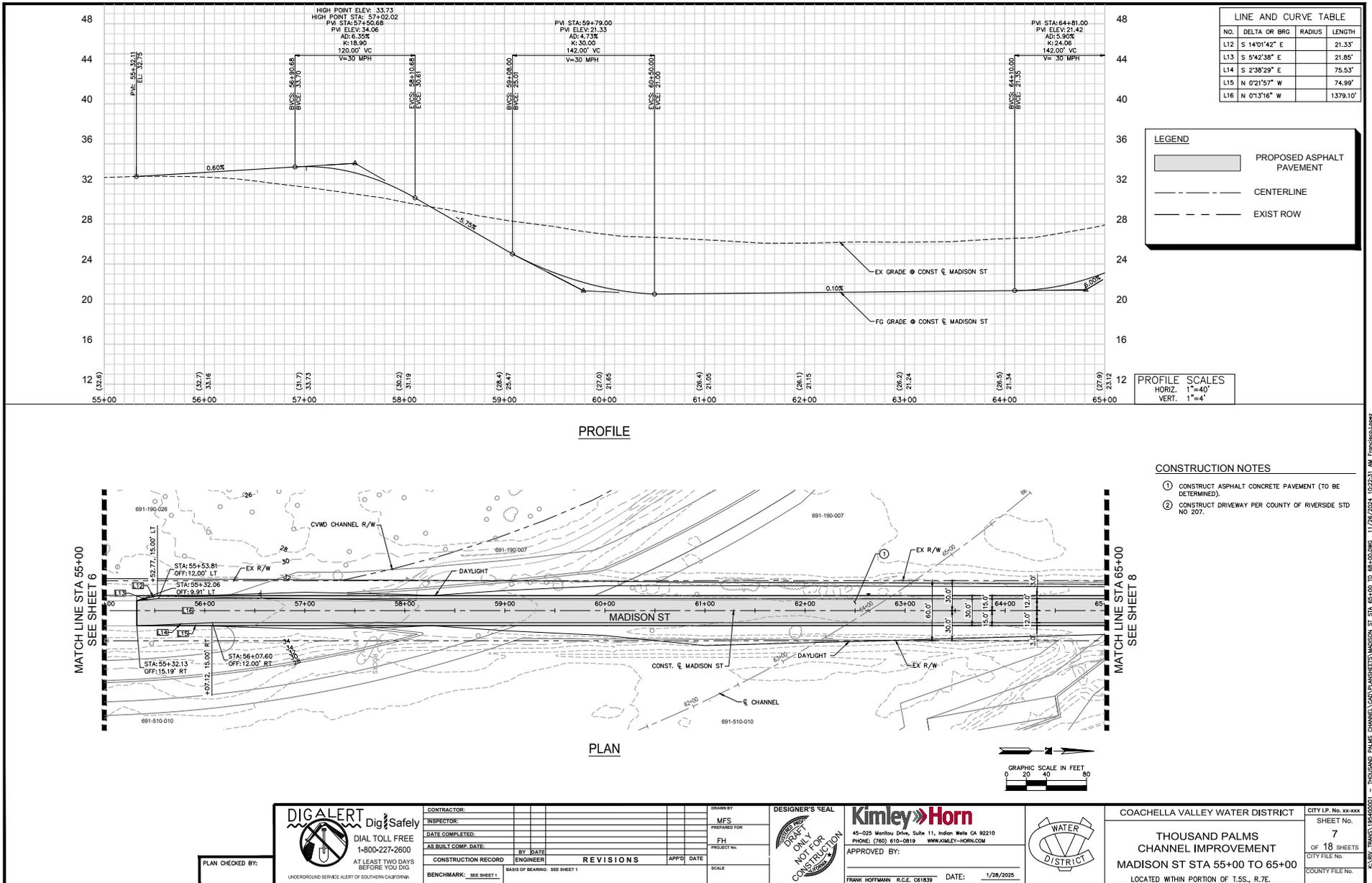
<p>DIGALERT Dig & Safely DIAL TOLL FREE 1-800-227-2600 AT LEAST TWO DAYS BEFORE YOU DIG UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA</p>	CONTRACTOR: INSPECTOR: DATE COMPLETED: AS BUILT COMP. DATE: CONSTRUCTION RECORD BENCHMARK: SEE SHEET 7	DESIGNED BY: MFS PREPARED FOR: FH PROJECT NO.: APPROVED BY: DATE: 1/28/2025	<p>45-025 Mantua Drive, Suite 11, Indio, WA CA 92210 PHONE: (760) 610-0819 WWW.KIMLEY-HORN.COM</p>	<p>COACHELLA VALLEY WATER DISTRICT THOUSAND PALMS CHANNEL IMPROVEMENT MADISON ST STA 45+00 TO 55+00 LOCATED WITHIN PORTION OF T.S.S., R.7E.</p>	CITY L.P. No. 00-000 SHEET No. 6 OF 18 SHEETS CITY FILE No.: COUNTY FILE No.:
	PLAN CHECKED BY: BASIS OF BEARING: SEE SHEET 7	REVISIONS APP'D DATE	SCALE:	APPROVED BY: FRANK HOFFMANN R.C.E. 001830	

Source: Kimley-Horn and Associates, Inc., 2025

FIGURE 2-6: Proposed Roadway Improvements
 Thousand Palms Channel Improvement Project

Not to scale



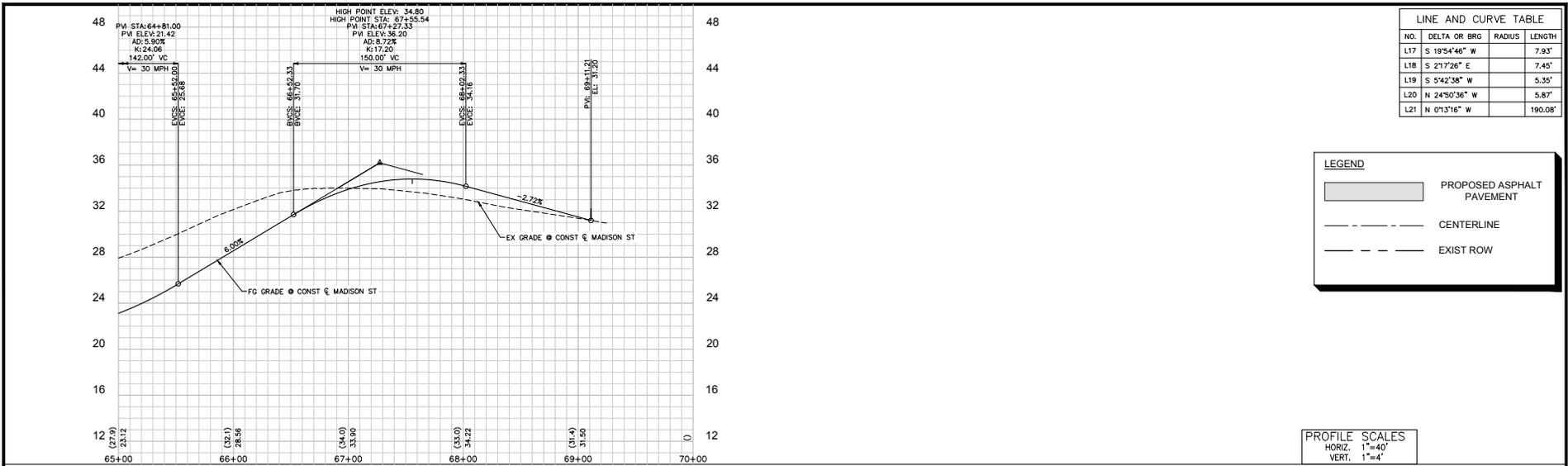


Source: Kimley-Horn and Associates, Inc., 2025

FIGURE 2-6: Proposed Roadway Improvements
Thousand Palms Channel Improvement Project

Not to scale

Kimley >>> Horn

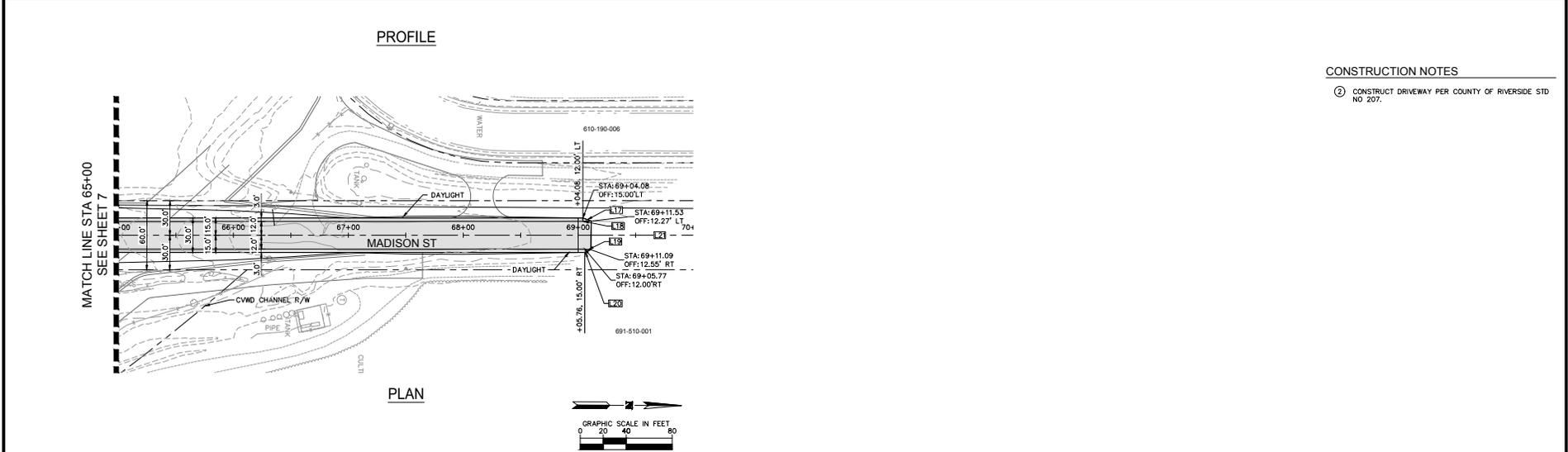


LINE AND CURVE TABLE			
NO.	DELTA OR BRC	RADIUS	LENGTH
L17	S 19°54'46" W		7.93'
L18	S 2°17'26" E		7.45'
L19	S 5°42'38" W		5.35'
L20	N 24°50'36" W		5.87'
L21	N 0°13'16" W		190.08'

LEGEND

- PROPOSED ASPHALT PAVEMENT
- CENTERLINE
- EXIST ROW

PROFILE SCALES
 HORIZ. 1"=40'
 VERT. 1"=4'



CONSTRUCTION NOTES

- ② CONSTRUCT DRIVEWAY PER COUNTY OF RIVERSIDE STD NO 207.

<p>PLAN CHECKED BY:</p>	Dig & Safely DIAL TOLL FREE 1-800-227-2600 AT LEAST TWO DAYS BEFORE YOU DIG UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA	CONTRACTOR:	DRAWN BY:	Kimley-Horn 45-025 Montebello Drive, Suite 11, Inglewood, CA 90231 PHONE: (760) 610-0819 WWW.KIMLEY-HORN.COM		COACHELLA VALLEY WATER DISTRICT THOUSAND PALMS CHANNEL IMPROVEMENT MADISON ST STA 65+00 TO 68+00 LOCATED WITHIN PORTION OF T.S.S., R.7E.	CITY I.P. No. 20-244 SHEET No. 8 OF 18 SHEETS CITY FILE No. COUNTY FILE No.
		INSPECTOR:	DESIGNER'S SEAL:				
		DATE COMPLETED:	PREPARED FOR:	APPROVED BY: DATE: 1/28/2025 FRANK HOFFMANN R.C.E. 061630			
		AS BUILT COMP. DATE:	FH PROJECT No.:				
		BY DATE:	SCALE:				
		CONSTRUCTION RECORD ENGINEER:	REVISIONS:				
		BENCHMARK: SEE SHEET 1	BASE OF BEARING: SEE SHEET 1				

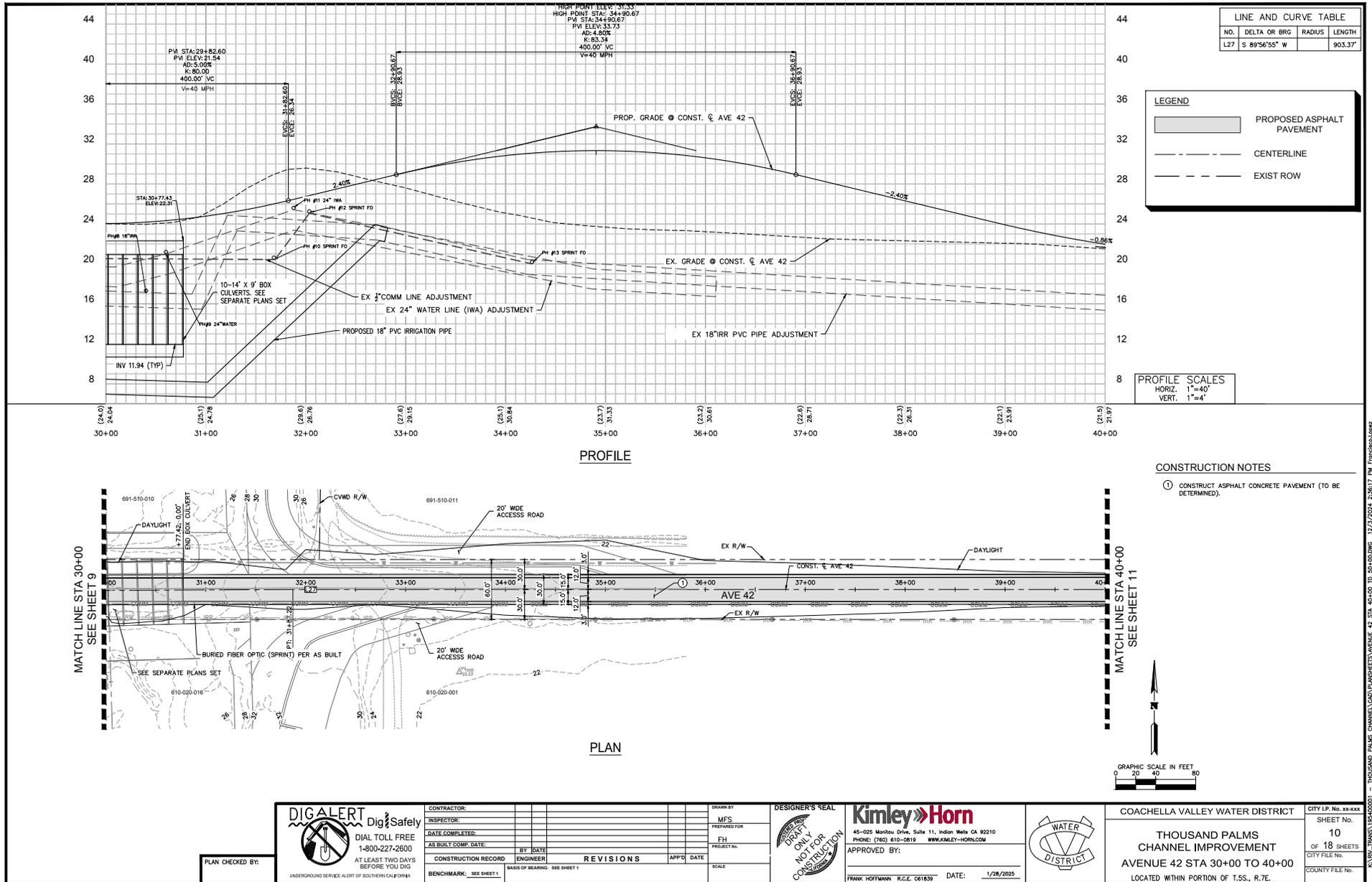
Source: Kimley-Horn and Associates, Inc., 2025

FIGURE 2-6: Proposed Roadway Improvements
 Thousand Palms Channel Improvement Project

Not to scale



K:\WP_1\THOUSAND PALMS CHANNEL\CAD\PLANS\THOUSAND PALMS MADISON ST STA 65+00 TO 68+00.DWG 11/28/2024 10:23:31 AM P:\work\hsl\hsl

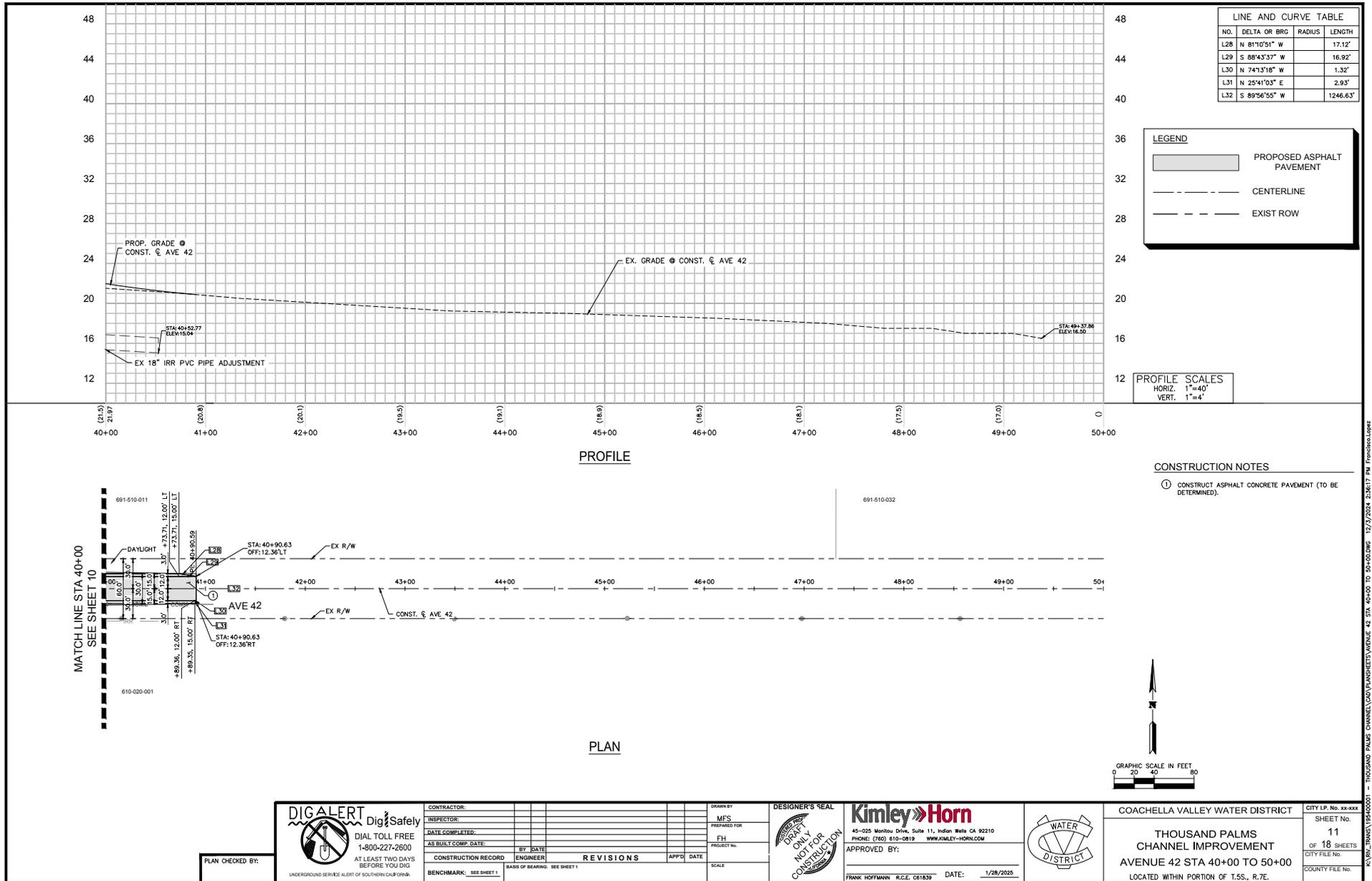


Source: Kimley-Horn and Associates, Inc., 2025

FIGURE 2-6: Proposed Roadway Improvements
 Thousand Palms Channel Improvement Project

Not to scale

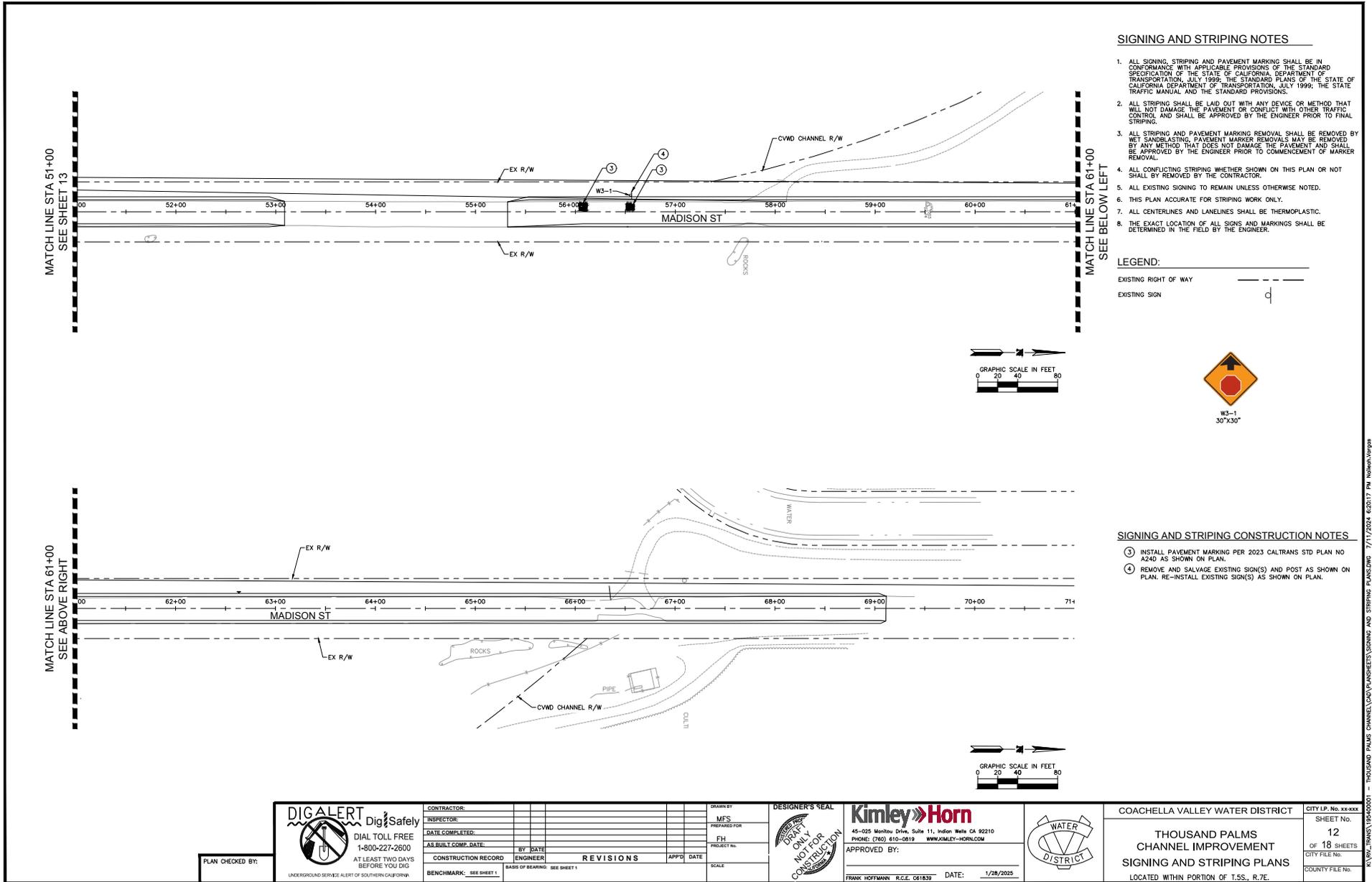




Source: Kimley-Horn and Associates, Inc., 2025

FIGURE 2-6: Proposed Roadway Improvements
 Thousand Palms Channel Improvement Project

Not to scale



Source: Kimley-Horn and Associates, Inc., 2025

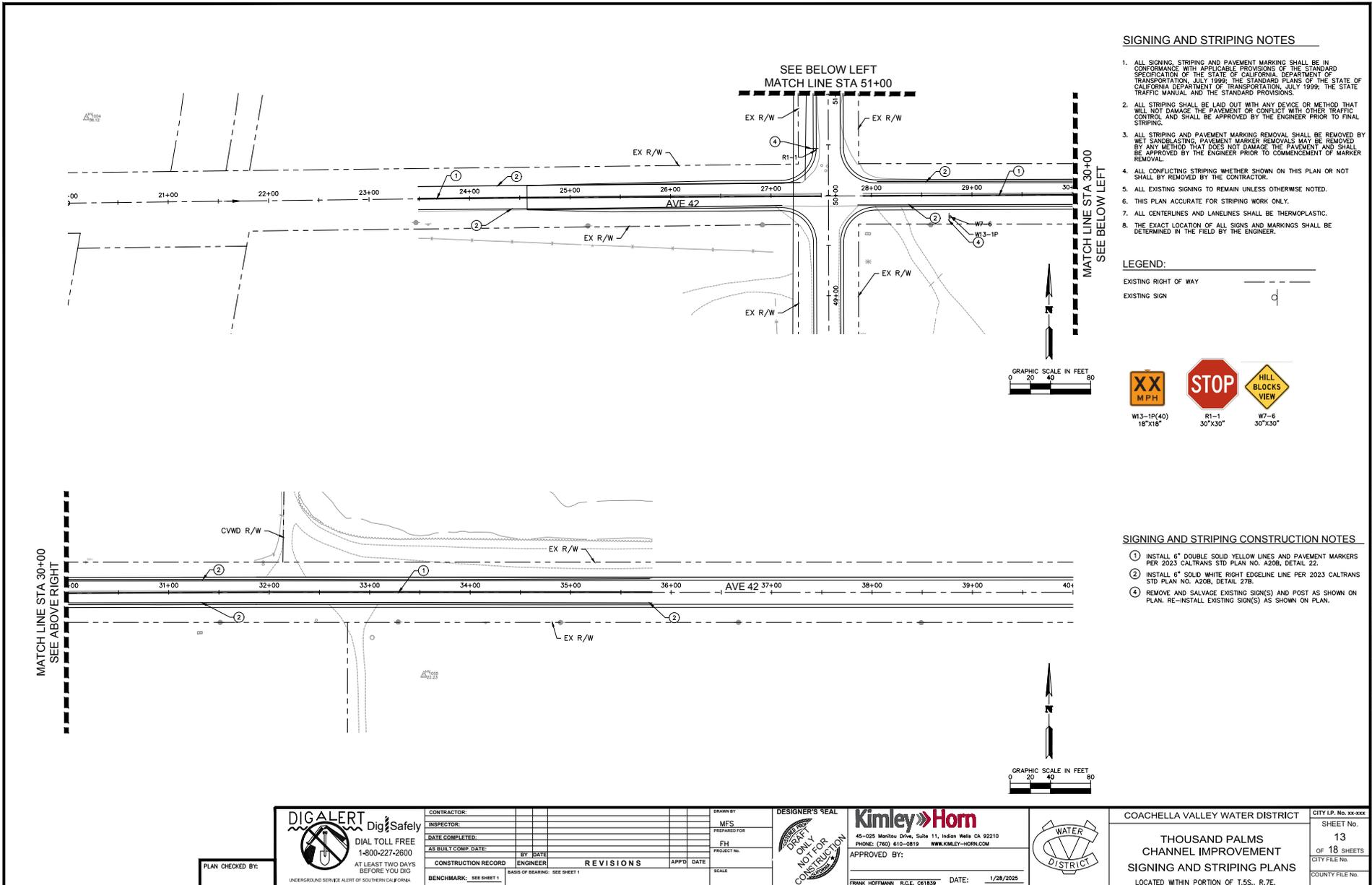
FIGURE 2-6: Proposed Roadway Improvements
Thousand Palms Channel Improvement Project

Not to scale



 DIAL TOLL FREE 1-800-227-2600 AT LEAST TWO DAYS BEFORE YOU DIG UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA	CONTRACTOR:	INSPECTOR:	DATE COMPLETED:	AS BUILT COMP. DATE:	BY DATE:	ENGINEER:	REVISIONS	APPROVED BY:	DATE:	SCALE:	 45-025 Mainway Drive, Suite 11, Indio, Wells CA 92210 PHONE: (760) 610-0819 WWW.KIMLEY-HORN.COM	 COACHELLA VALLEY WATER DISTRICT THOUSAND PALMS CHANNEL IMPROVEMENT SIGNING AND STRIPING PLANS LOCATED WITHIN PORTION OF T.S.S., R.7E.	CITY I.P. No. xxxxxx SHEET No. 12 OF 18 SHEETS CITY FILE No. COUNTY FILE No.
	PLAN CHECKED BY: 	CONSTRUCTION RECORD BENCHMARK: SEE SHEET 1	BASIS OF BEARING: SEE SHEET 1	DRAWN BY: MFS PREPARED FOR: FH PROJECT NO.:	DESIGNER'S SEAL TRANK HOFFMANN R.C.E. 061830	APPROVED BY: DATE: 1/28/2025							

15000_20250128_12 - THOUSAND PALMS CHANNEL/CAO PLANS/SHEETS/SIGNING AND STRIPING PLANS/REVISED 7/17/2024 6:20:17 PM Norrish_Vogler



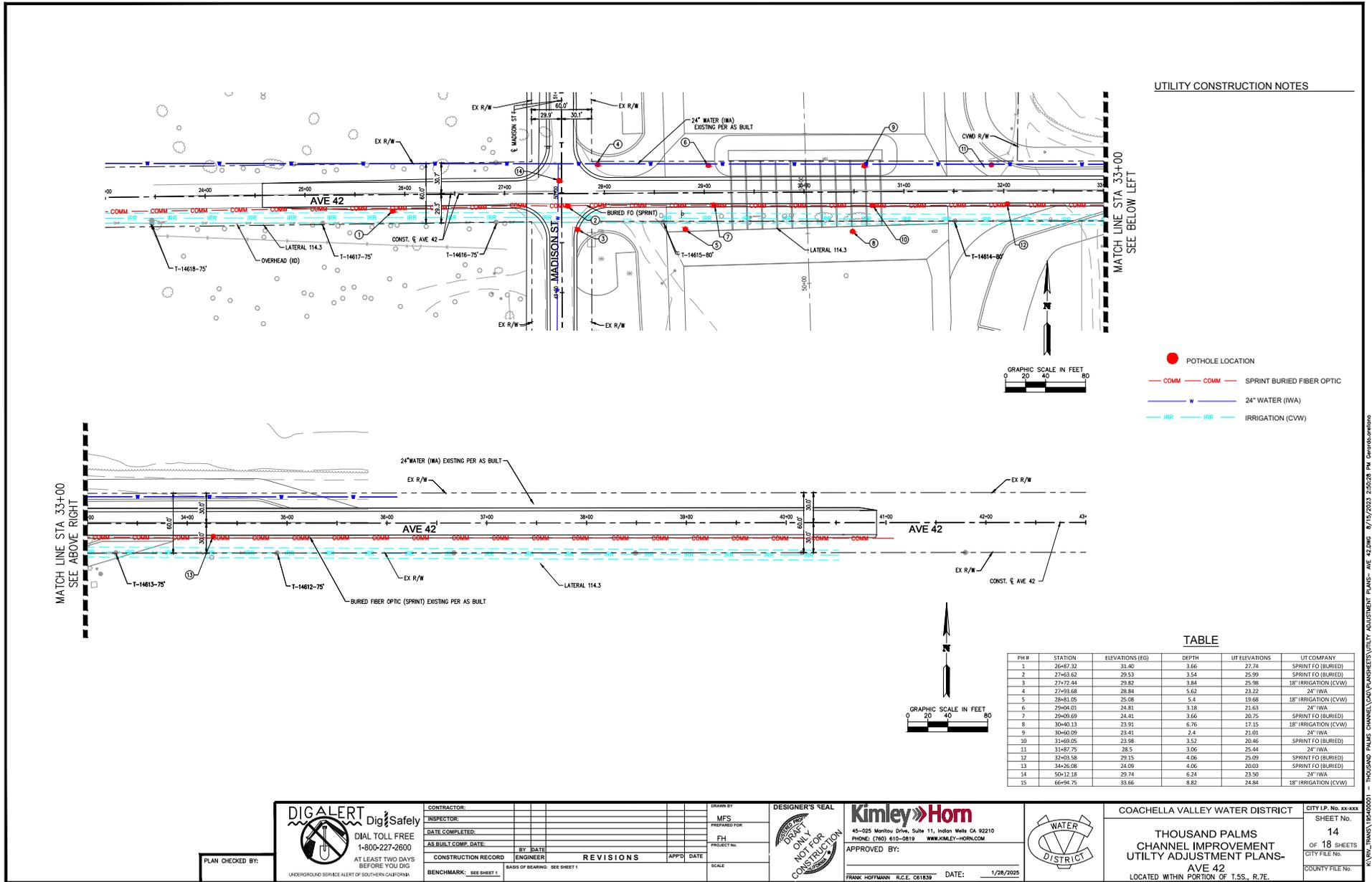
Source: Kimley-Horn and Associates, Inc., 2025

FIGURE 2-6: Proposed Roadway Improvements
 Thousand Palms Channel Improvement Project

Not to scale



K:\WORK\THOUSAND PALMS CHANNEL\CAD PLANS\SHEETS\SIGNING AND STRIPING PLANS\DWG 7/17/2024 6:02:17 PM hofmann@khor.com



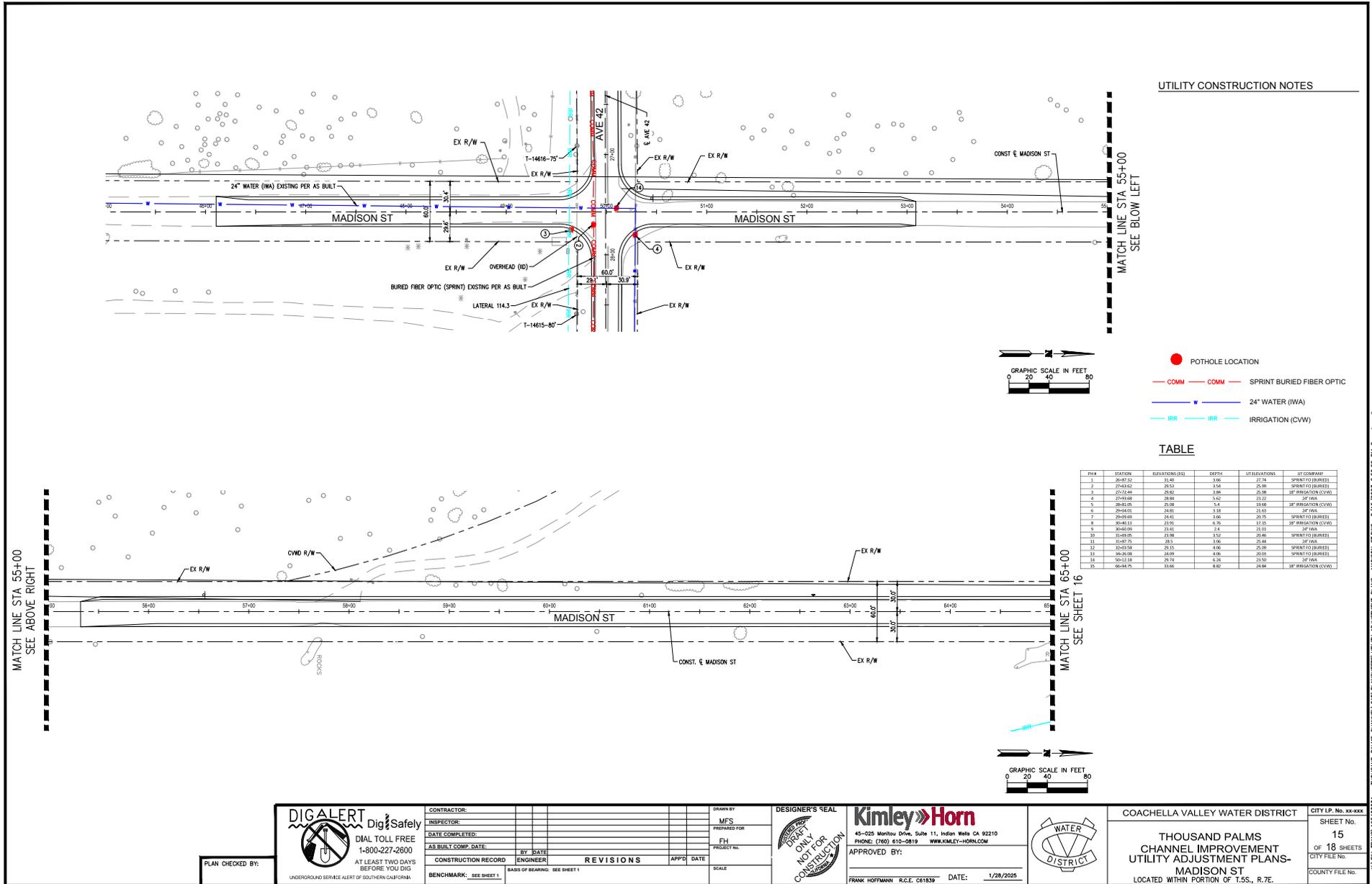
Source: Kimley-Horn and Associates, Inc., 2025

FIGURE 2-6: Proposed Roadway Improvements
Thousand Palms Channel Improvement Project

Not to scale

Kimley»Horn

PLAN CHECKED BY: [Signature] CONTRACTOR: [Signature] DESIGNER'S SEAL: [Signature] DATE: 1/28/2025

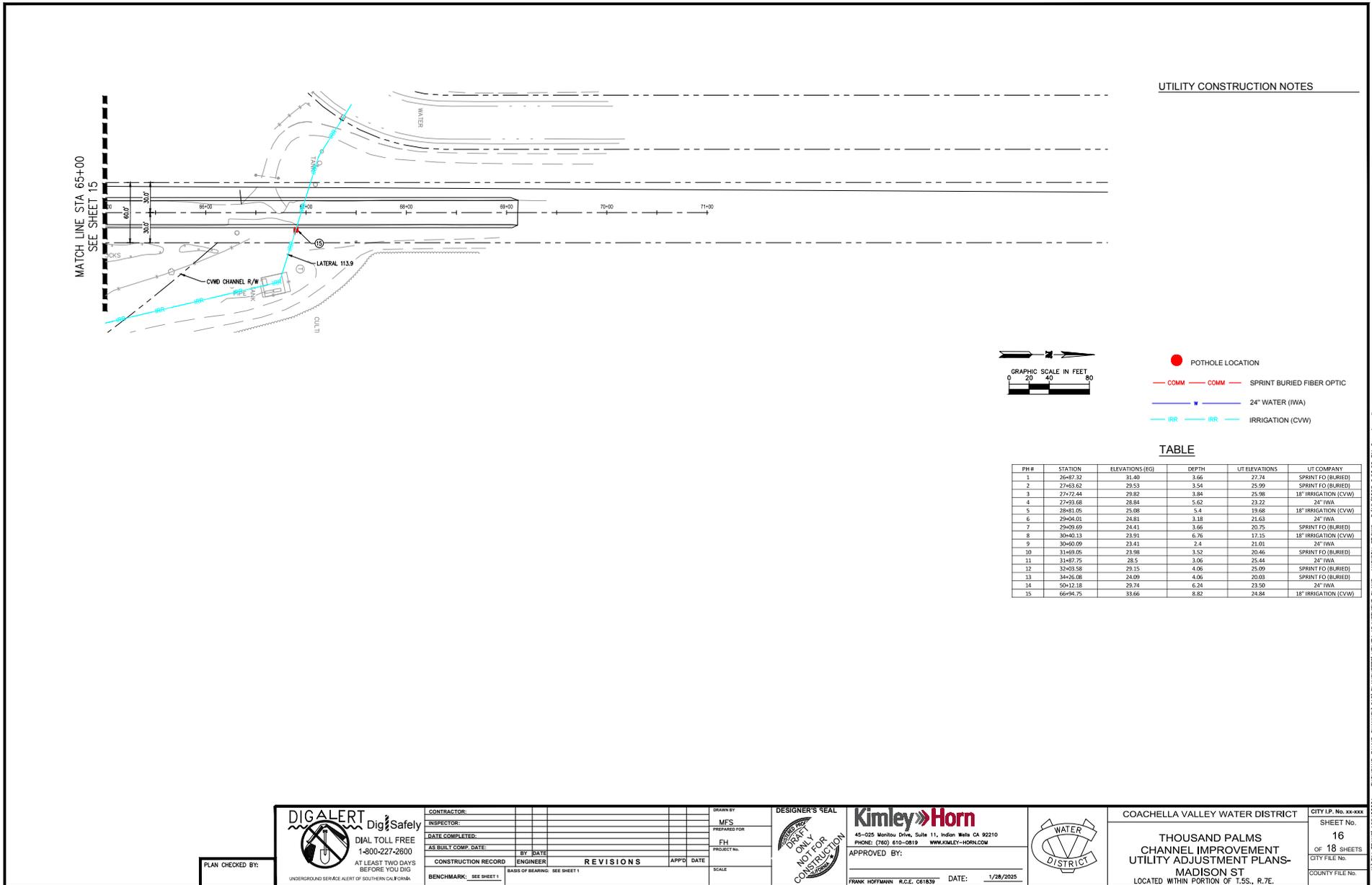


Source: Kimley-Horn and Associates, Inc., 2025

FIGURE 2-6: Proposed Roadway Improvements
 Thousand Palms Channel Improvement Project

Not to scale



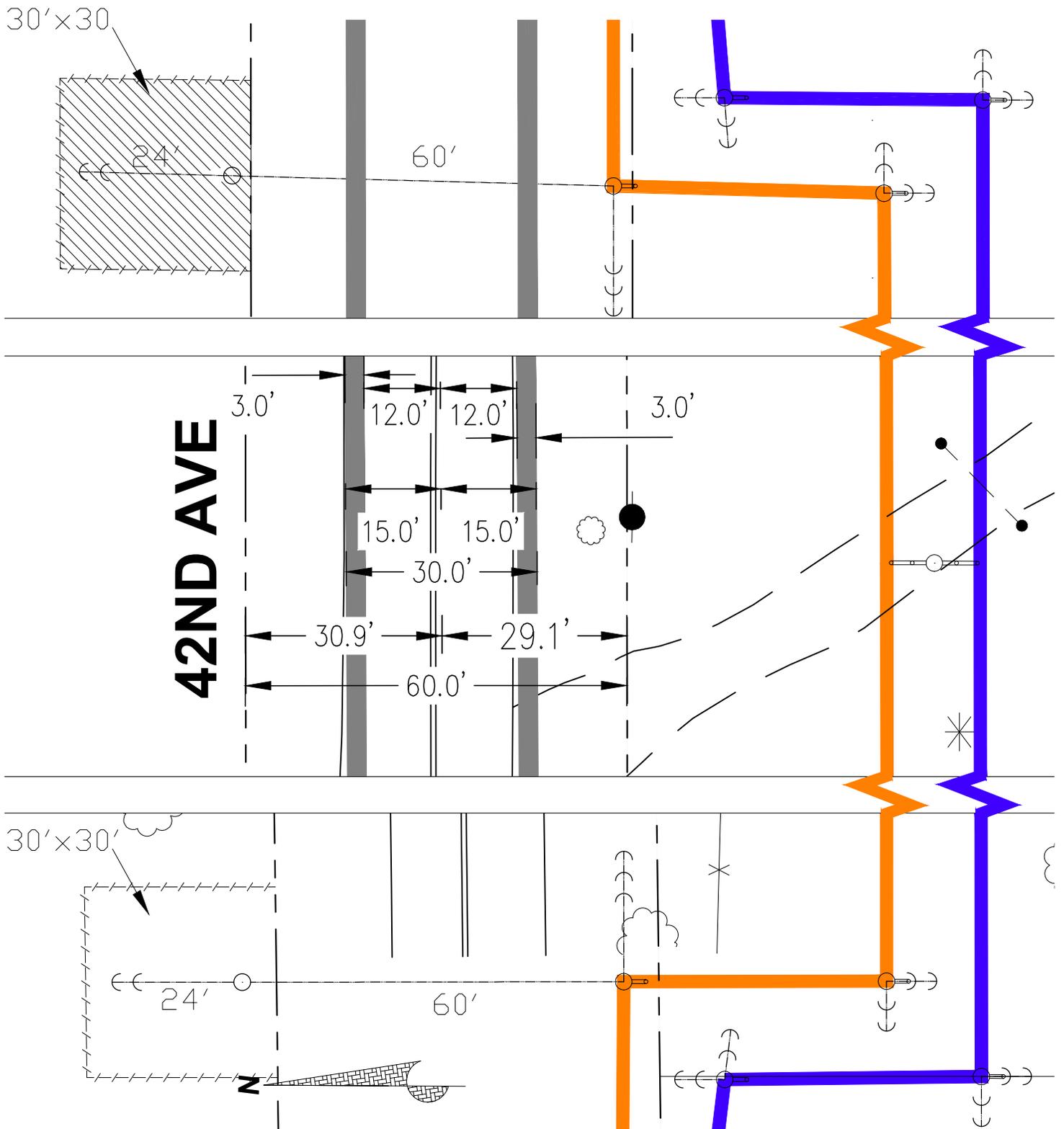


Source: Kimley-Horn and Associates, Inc., 2025

FIGURE 2-6: Proposed Roadway Improvements
 Thousand Palms Channel Improvement Project

Not to scale





42ND AVE

LEGEND

- ASSESSOR PARCEL APROX.
- NEW TEMP 92 kV CI LINE
- NEW TEMP 92 kV CW LINE
-  TEMP WOOD POLE W/DGUY
-  TEMP WOOD POLE

Source: Imperial Irrigation District, 2024

FIGURE 2-7: Temporary Shoofly Improvements
Thousand Palms Channel Improvement Project

2.6 Project Construction

2.6.1 Construction Schedule

Construction is anticipated for the duration of 12 months. The project’s maximum area of disturbance during the construction period would encompass approximately 52 acres, this includes permanent and temporary areas. The staging area would likely be on the east side of the Channel just north of the I-10 crossing. This would be within the current CVWD right-of-way. Disturbance activities would occur in existing roadways and within the existing Channel. Disturbed areas would be restored the designed finish grade and vegetated areas would be replanted with the appropriate native species.

Project construction activity is anticipated to occur continuously between the hours of 7:00 am and 6:00 pm, Monday through Friday only (not on the weekend) and excluding federal holidays, which is compliant with the County of Riverside Ordinance Regulating Noise. Nighttime construction is not expected to occur. However, any nighttime/construction lighting would be conducted in accordance with the Mount Palomar Lighting Policy, requiring lighting to be shielded and directed onto the subject parcel only. The expected timing of each phase of construction are as follows:

Table 2-1: Construction Phasing

Phase Name	Total Working Duration (approximate)
Site Preparation	21 days
Site Grading	90 days
Channel lining / Grade Control Structures	270 days
Roadway Paving	60 days
Site Cleanup	21 days

2.6.2 Construction Standards

The construction contractor retained by CVWD would implement the following standard/best practices related to construction of the Project. These are practices are typical for all construction and are generally required by local or regional agencies, such as the Regional Water Quality Control Board or the relevant Air Quality Management District.

Drainage / Erosion Control – During construction, existing stormwater facilities including catch basins, manholes, and ditches, if present on-site, 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 would be implemented by the construction contractor as applicable to the Project site’s stormwater drainage features. In addition, the construction contractor would be required to obtain a Construction General Permit pursuant to NPDES, which would require development of a construction SWPPP and implementation of best management practices to prevent polluted runoff from leaving the construction site.

Traffic Controls - Construction of the Project may necessitate individual traffic lane closures. Traffic control requirements would require that emergency crews have access, as needed, and that the contractor coordinates the location of the work daily for routing of emergency vehicles. Traffic control would also require the contractor to make reasonable efforts, wherever possible, to provide landowners access to their property and patrons access to businesses during execution of the work. The construction contractor may be required to have a City-approved traffic control plan.

Air Quality / Dust Suppression – The contractor would be required to comply with the California Air Resources Boards (CARB) 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. In order to reduce emissions of dust and particulate matter during construction, prior to grading or excavation, the Construction Contractor would be required to prepare a Fugitive Dust Control Plan, subject to the approval of CVWD and SCAQMD, to comply with SCAQMD Rule 403 and Rule 403.1. As a standard condition, any ground surface area that is temporarily disturbed by construction activities must be entirely covered by the Fugitive Dust Control Plan and must be properly re-stabilized to satisfy the SCAQMD performance standards. The Fugitive Dust Control Plan shall include, but not be limited to, dust control best management practices identified in the Coachella Valley Fugitive Dust Control Handbook, such as:

- Measures to prevent sediment track-out onto public roads.
- Measures to prevent visible dust emissions from exceeding a 20-percent opacity.
- Measures to prevent visible dust emissions from extending more than 100 feet (vertically or horizontally from the origin of a source) or crossing any property line.
- Other dust control measures may include construction phasing, maintenance/ cleaning of construction equipment, soil stabilization, installation of track-out prevention devices, and wind fencing.
- The Fugitive Dust Control shall identify any areas that shall remain undisturbed by the construction activities.
- Implementation of the Fugitive Dust Control Plan shall occur under the supervision of an individual with training on Dust Control in the Coachella Valley and shall be enforceable by SCAQMD inspectors during the period of construction.

Geotechnical Standards - Although construction of the Project would create limited potential for adverse impacts, the Project would comply with all local, state, and federal geotechnical standards for building and construction, specifically, the Project would comply with all standards described within the California Building Code. Other standards conditions may be applied to the Project. Examples are provided below for information purposes only.

- Training. All construction personnel would be briefed on Project-specific circumstances relating to construction safety and erosion control.
- Code Compliance. All site preparation and construction would comply with the design provisions contained within the Project-specific Geotechnical Reports.
- General Compliance. All grading would be performed in accordance with typical CVWD specifications.
- Seismic Design Parameters. The Project would follow seismic design parameters from USGS. Geologic observations will be performed during grading.

2.7 Operation and Maintenance

CVWD would continue to operate the Channel with no operational modifications. The Channel would require routine maintenance, once operational. Routine maintenance operations include inspections of infrastructure along the Channel, vegetation clearing/landscaping, and other operations associated with a stormwater and flood control channel.

2.8 Permits and Approval Anticipated

The permits and approvals listed in **Table 2-2** may be required for Project construction. The types of permits necessary to construct the Project would be confirmed during the design phase.

Table 2-2: Anticipated Permits and Approvals

Agency	Permit or Approval	Status
City of Indio	Grading Permit	This permit would be acquired prior to the commencement of construction.
Regional Water Quality Control Board	NPDES General Construction Permit	This permit would be acquired prior to construction commencing and prior to the issuance of grading permits for the Project.
California Department of Transportation	Encroachment Permit	This permit would be acquired prior to the commencement of construction and prior to the issuance of grading permits for the Project.
United States Bureau of Reclamation	License Agreement	This permit would be acquired prior to the commencement of construction and prior to the issuance of grading permits for the Project.

2.9 Comments Received on the Public Draft Initial Study

The Draft IS/MND was circulated for a period of 30 days from February 28, 2025 through March 31, 2025. The Draft IS/MND was available for public review online at www.cvwd.org.

CVWD received three comment letters on the Draft IS/MND from the California Department of Fish and Wildlife (CDFW) on March 28, 2025, Imperial Irrigation District (IID) on March 31, 2025, and the United States Fish and Wildlife Service (USFWS) on April 4, 2025. The comment letters and CVWD’s responses are provided in **Appendix F**. The responses to each comment identify the number of the comment to which they are responding. In response to these comments, revisions throughout the Draft IS/MND were made. Changes to the Draft IS/MND that were made in response to comments on the document are shown in ~~strike through~~ for deletions and underline for additions. None of the comments received on the Draft IS/MND identified potential significant impacts, an increase in the severity of an identified less than significant impact, or the need for additional mitigation measures.

3.0 ENVIRONMENTAL CHECKLIST FORM

1. **Project title:** Thousand Palms Channel Improvement Project (Project)
2. **Lead agency name and address:**

Coachella Valley Water District
75-519 Hovley Lane East
Palm Desert, CA 92211
3. **Contact person and phone number:**

William Patterson
Environmental Services Program Supervisor
Coachella Valley Water District
75-519 Hovley Lane East
Palm Desert, CA 92211
(760) 398-2651
4. **Project location:** The Project is within the City of Indio (City), Riverside County, surrounded primarily by vacant land and irrigated agriculture. At its northern extent, the Project abuts a golf course associated with the Sun City Shadow Hills residential community. The Channel runs south-southeast, intersecting Madison Street, Avenue 42, and Interstate 10, before it converges with the CVSC, at its southern extent. Single-family residential development associated with Sun City Shadow Hills is located near the Project's northern extent and commercial and mobile-home residential is located at the Project's southern extent on the south side of Indio Boulevard. The Project site consist of the follow Assessor's Parcel Numbers (APNs): 606091001, 610020001, 610020006, 610020007, 610020008, 610020012, 610020015, 610020016, 610030014, 610030020, 691190006, 691190007, 691190026, 691510001, 691510010, 691510011.
5. **Project sponsor's name and address:** Same as Lead Agency
6. **City of Indio General Plan Designation:** Parks and Open Space and Workplace Employment District
7. **City of Indio Zoning:** Park and Open Space (OS) and Specific Plan/Project Master Plan (SP/PMP).
8. **Description of project:** The proposed Project would improve the approximately 5,750-foot Channel with concrete side slopes, drop structures, culverts for roadway crossings, and other appurtenant infrastructure. The Project would adjust the vertical alignments of the existing Madison Street and Avenue 42. The Project would assist CVWD with its goal to manage stormwater flows and provide appropriate regional flood control.
9. **Surrounding land uses and setting:** The Project is surrounded by agricultural uses, vacant land, and residential development. To the north of the Project site lies the Sun City Shadow Hills residential development and irrigated agricultural fields. To the east of the Project site lies irrigated agricultural fields and vacant land. To the south of the Project site lies commercial and residential development. To the west of the Project lies vacant lands.

10. **Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement):** Refer to **Table 2-2: Anticipated Permits and Approvals**.
11. **Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code §21080.3.1? 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 February 20, 2024, CVWD mailed formal AB 52 consultation letters to the twelve (12) local Native American tribal governments which have previously requested to consult under AB 52. CVWD received four responses within the 30-day response timeframe, and two formal requests for consultation in February 2024 from Agua Caliente Band of Cahuilla Indians and in March 2024 from Cabazon Band of Mission Indians. Staff met with the Agua Caliente Band of Cahuilla Indians on April 17, 2024, and Cabazon Band of Mission Indians on May 1, 2024, to discuss the project. Cabazon Band of Mission Indians reviewed and concurred with the proposed mitigations in October 2023 and requested consultant be concluded. As of the date of the circulation of this Draft IS/MND, Tribal Consultation is still ongoing with certain tribes. Refer to Section 4.18 Tribal Cultural Resources for further discussion.

NOTE: Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and project proponents to discuss the level of environmental review, identify and address potential adverse impacts to tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process. (See Public Resources Code §21080.3.2.) Information may also be available from the California Native American Heritage Commission's Sacred Lands File per Public Resources Code §5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that Public Resources Code §21082.3(c) contains provisions specific to confidentiality.

Environmental Factors Potentially Affected

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

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

DETERMINATION: (To be completed by the Lead Agency)

On the basis of this initial evaluation (check one):

- I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- I find that 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.
- I find that the proposed Project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- I find that the proposed Project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- I find that although the proposed 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 proposed Project, nothing further is required.

Prepared by: MDK 06/12/25
Meghan Karadimos, Environmental Planner
Kimley-Horn and Associates, Inc. Date

Reviewed by: Carlos Huerta 06.12.2025
Carlos Huerta, Environmental Resources Analyst
Coachella Valley Water District Date

Reviewed by: William Patterson 6-12-25
William Patterson, Environmental Services
Program Supervisor
Coachella Valley Water District Date

Submitted by: Joanne Le 6/12/25
Joanne Le, Director of Environmental Services
Coachella Valley Water District Date

Approved by: Sylvia Bermudez 6/24/25
Sylvia Bermudez, Clerk of the Board
Coachella Valley Water District Date

4.0 ENVIRONMENTAL ANALYSIS

4.1 AESTHETICS

	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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 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 checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

The Project proposes installation of drainage channel infrastructure consisting of an earthen channel with concrete side slopes. This channel infrastructure would connect Sun City Shadow Hills to the CVSC just east of the intersection of Indio Boulevard and the CVSC. The Coachella Valley is relatively flat, surrounded by undeveloped northwest-southeast trending mountainous areas to the east (Mecca Hills and Joshua Tree National Park) and west (Santa Rosa and San Jacinto Mountains). The general visual character of the Coachella Valley in the vicinity of the Project generally consists of single-family residential developments, vacant lots, and agricultural uses.

The current land uses surrounding the Project area consists of single-family residential to the north, specifically Sun City Shadow Valley, undeveloped lots to the east and west, the Coachella Canal to the west, and commercial to the south. See **Figure 4-1: Project Site Photos** for views of adjacent land uses.

The proposed infrastructure improvements include paving the slopes of the existing drainage channel with concrete, grading the flowline of the drainage channel to ensure positive slopes, and security fencing along the Channel right-of-way. These improvements will be at grade and visible from the public viewshed. According to preliminary design, the Channel would consist of 1.5:1 concrete side slopes and 1:1 cutoff walls below grade. The Channel's flowline would be graded to achieve a 0.1 percent slope or a 0.001 foot per foot change of elevation over a distance.

a) Have a substantial adverse effect on a scenic vista?

Less than Significant Impact.

Scenic vistas or public views are defined as views of scenic resources from public locations. Scenic viewpoints can be defined as singular vantage points that offer an unobstructed view of expansive visible landscape components. Due to the City's physical setting in the Coachella Valley, scenic views of the Santa Rosa, San Jacinto and Little San Bernardino Mountains, Indio Hills, and other undeveloped hilly areas are available throughout the City. Furthermore, the Coachella Valley floor, where the Project site is located, is

considered to have a generally low landscape quality, due to the lack of diversity and vivid features or contrasting elements.

The Project proposes improvements and developments to be at grade and/or at elevations lower than current ground surface elevations. There are no improvements proposed that would potentially obstruct views of mountains, hills, or other scenic resources that extend into higher elevation areas. Generally, the Project site would be visible in foreground views of these scenic resources, however Project elements would be low in profile and elevation such that they would not impact background views of the previously identified scenic resources. Project implementation may result in the short-term impacts regarding scenic views as construction equipment may be utilized that would temporarily obstruct views. However, these impacts would stop after the completion of construction and would not contain any long-term effects to scenic views. As such, the implementation of the Project would have less than significant impacts to scenic resources and vistas.

b) *Substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway?*

No Impact.

The Project is not within view of a State or County designated scenic highway. The nearest officially designated State Scenic Highway to the Project site is SR-74, approximately 8.2 miles to the southwest.¹⁶ SR-111 is the nearest Eligible State Scenic Highway. The nearest portion of SR-111 is at the same location as SR 74. Due to the Project's distance to SR 74 and SR-111, the Project is not located within view of a State or County designated or eligible viewshed. Construction of the Project would not damage trees, rock outcroppings, historical buildings, or any other visible feature other than road surfaces and already disturbed land. As such, there would be no impacts related to scenic highways.

c) *In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?*

Less than Significant Impact.

As previously discussed, the Coachella Valley floor is generally characterized as having a low landscape quality, due to lack of diversity of geographic elements, vivid features, or contrasting elements. The existing conditions at the Project site are generally entirely disturbed with graded, un-vegetated, soils comprising the existing drainage channel. Project implementation may result in short-term impacts to the visual character or quality of the Project site and surrounding area due to the presence of construction material and equipment staging, excavation, and roadway construction. Due to the already disturbed nature of the Project site, temporary impacts from construction would be minimal and represent a less than significant impact.

The Project site parcels are zoned as Park and Open Space (OS) and Specific Plan/Project Master Plan (SP/PMP). The portions of the Project site with the zoning designation of OS are dedicated to water courses utilized for irrigation and stormwater control. As such, the Project would not conflict with the zoning regulations for the City. Additionally, the Project would be required to comply with the City of Indio General Plan 2040 policies regarding scenic quality. As the Project would be consistent with zoning regulations and

¹⁶ California Department of Transportation. ND. *California State Scenic Highway System Map*.
<https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aaca> (accessed April 2022).

would consist of a minimal impact to the visual character of the existing land uses impacts would be less than significant.

d) *Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?*

No Impact.

The Project does not propose the development of land uses that require the use of lighting. The Project would not implement the use of materials that are known to generate glare. As such, the Project would have no impact with regard to light or glare.

Mitigation Measures

No mitigation measures are necessary.

Cumulative Impacts

Cumulative impacts can result from the interactions of environmental changes resulting from one proposed Project with changes resulting from other past, present, and future projects that affect the same resources. Such impacts could be short-term and temporary, usually consisting of overlapping construction impacts, as well as long-term impacts, due to the permanent land use changes and operational characteristics involved with the proposed projects. For purposes of cumulative aesthetic impacts analysis, cumulative impacts are considered in connection with the anticipated future development of projects in the vicinity of the Project site. Impacts to aesthetic resources are typically constrained to individual projects but could be considered cumulative should a large amount of development be proposed for a specific area. However, the Project consists of improvements to an existing drainage channel and does not propose vertical structures which could impact sightlines to scenic resources. Further, the Channel is a known feature at the Project site and improvements to the Channel would not result in cumulative impacts to the character of the landscape. As such, the Project would not result in a cumulatively significant impact regarding aesthetic resources.

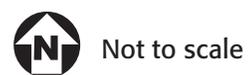


Legend

Photo Point of Interest

Aerial Source: Nearmap, 2023
Photos Source: Kimley-Horn and Associates, Inc., 2023

FIGURE 4-1: Project Site Photos
Thousand Palms Channel Improvement Project



**1000 Palms Channel Site Visit
Photograph Sheet**

KHA Job No.: 195400001
KHA Rep.: Miles Eaton
Date: April 13, 2023
Page: 1 of 9

Photo No. 1



Remarks: Looking north along Madison Street.

Location: Point of Interest 1

Elevation: -

Photo No. 2



Remarks: Looking east at adjacent agriculture uses.

Location: Point of Interest 1

Elevation: -

**1000 Palms Channel Site Visit
Photograph Sheet**

KHA Job No.: 195400001
KHA Rep.: Miles Eaton
Date: April 13, 2023
Page: 2 of 9

Photo No. 3



Remarks: Looking south along Madison Street.

Location: Point of Interest 1

Elevation: -

Photo No. 4



Remarks: Looking west at adjacent residential uses.

Location: Point of Interest 1

Elevation: -

1000 Palms Channel Site Visit
Photograph Sheet

KHA Job No.: 195400001
KHA Rep.: Miles Eaton
Date: April 13, 2023
Page: 3 of 9

Photo No. 5



Remarks: Looking west at adjacent residential uses.

Location: Point of Interest 2

Elevation: -

Photo No. 6



Remarks: At-grade crossing of Madison Street looking along Channel alignment.

Location: Point of Interest 3

Elevation: -

**1000 Palms Channel Site Visit
Photograph Sheet**

KHA Job No.: 195400001
KHA Rep.: Miles Eaton
Date: April 13, 2023
Page: 4 of 9

Photo No. 7



Remarks: Sta. 18+75, looking east from Madison Street.

Location: Point of Interest 4

Elevation: -

Photo No. 8



Remarks: At-grade crossing of Ave 42, looking east from intersection of Madison Street and Ave 42.

Location: Point of Interest 5

Elevation: -

**1000 Palms Channel Site Visit
Photograph Sheet**

KHA Job No.: 195400001

KHA Rep.: Miles Eaton

Date: April 13, 2023

Page: 5 of 9

Photo No. 9



Remarks: Looking north along Madison Street and Channel alignment.

Location: Point of Interest 5

Elevation: -

Photo No. 10



Remarks: Looking west along Ave 42 and adjacent land uses.

Location: Point of Interest 5

Elevation: -

**1000 Palms Channel Site Visit
Photograph Sheet**

KHA Job No.: 195400001
KHA Rep.: Miles Eaton
Date: April 13, 2023
Page: 6 of 9

Photo No. 11



Remarks: Looking south at adjacent land uses.

Location: Point of Interest 5

Elevation: -

Photo No. 12



Remarks: Looking east along Ave 42.

Location: Point of Interest 6

Elevation: -

**1000 Palms Channel Site Visit
Photograph Sheet**

KHA Job No.: 195400001
KHA Rep.: Miles Eaton
Date: April 13, 2023
Page: 7 of 9

Photo No. 13



Remarks: Looking southeast at adjacent land uses.

Location: Point of Interest 6

Elevation: -

Photo No. 14



Remarks: Looking northeast at adjacent land uses.

Location: Point of Interest 6

Elevation: -

**1000 Palms Channel Site Visit
Photograph Sheet**

KHA Job No.: 195400001

KHA Rep.: Miles Eaton

Date: April 13, 2023

Page: 8 of 9

Photo No. 15



Remarks: Looking northwest along Channel alignment.

Location: Point of Interest 6

Elevation: -

Photo No. 16



Remarks: Looking west along Ave 42 and at-grade crossing with the Channel.

Location: Point of Interest 6

Elevation: -

**1000 Palms Channel Site Visit
Photograph Sheet**

KHA Job No.: 195400001
KHA Rep.: Miles Eaton
Date: April 13, 2023
Page: 9 of 9

Photo No. 17



Remarks: Looking south along Channel alignment from Ave 42 crossing.

Location: Point of Interest 7

Elevation: -

Photo No. 18



Remarks: Looking southwest across Channel.

Location: Point of Interest 7

Elevation: -

4.2 AGRICULTURE AND FORESTRY RESOURCES

Would the project:	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input 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 conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

The Project includes the improvement of an existing stormwater drainage channel approximately 5,750 feet in length and varying width. Improvements include the installation of drop structures, roadway improvements, drainage channel side slope reinforcement with concrete, and the grading of the existing Channel to ensure positive drainage at a 0.001 ft/ft slope. According to the California Department of Conservation (DOC) California Important Farmland Finder, the Project site is entirely within land designated as “Other Land” which is characterized in part by vacant and nonagricultural land surrounded on all sides by urban development.¹⁷ There exists approximately 147.1 acres of prime farmland adjacent to Project site to the northeast as well as approximately 319.7 acres of farmland of local importance to the east and north of the Project site. Neither of these portions of land are part of the Project site and are not anticipated to be impacted as part of the Project.

According to the California Department of Fish and Wildlife (CDFW) Biogeographic Information and Observation System (BIOS), there are no forest lands or timberlands on the Project site.¹⁸ The Project site consists entirely of developed open space and shrubs or scrubs. The developed nature of the Project site as referenced by CDFW consists of the existing stormwater drainage channel within the Project site. There are no designated forest lands within the Project site.

¹⁷ California Department of Conservation. 2018. *California Important Farmland Finder*. <https://maps.conservation.ca.gov/DLRP/CIFF/> (accessed April 2022).

¹⁸ California Department of Fish and Wildlife. 2016. *Biogeographic Information and Observation System*. <https://apps.wildlife.ca.gov/bios/?bookmark=940> (accessed April 2022).

- 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?**

No Impact.

As previously stated, there are no lands within the Project site that are designated as prime farmland, unique farmland, or farmland of statewide importance. As such, there would be no impact in this regard as a result of Project implementation.

- b) **Conflict with existing zoning for agricultural use, or a Williamson Act contract?**

No Impact.

According to the City of Indio, the Project site is not located within an area currently zoned for agricultural uses.¹⁹ According to the DOC, the Project site is not located within an area designated by a Williamson Act contract.²⁰ As such, no impact is expected to occur.

- 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))?**

No Impact.

- d) **Result in the loss of forest land or conversion of forest land to non-forest use?**

No Impact.

As previously stated, there are no designated forest lands or timberlands within the Project site. As such, no impact is expected to occur.

- e) **Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?**

No Impact.

As previously stated, there are no farmlands or forest lands within the Project site. As such, no component of the Project would result in the conversion of farmlands or forest lands. No impact would occur.

Mitigation Measures

No mitigation measures are necessary.

Cumulative Impacts

Cumulative impacts can result from the interactions of environmental changes resulting from one proposed Project with changes resulting from other past, present, and future projects that affect the same resources. Such impacts could be short-term and temporary, usually consisting of overlapping construction impacts, as well as long-term impacts, due to the permanent land use changes and operational characteristics

¹⁹ City of Indio. ND. *Indio Public GIS Layers*. <https://gis.indio.org/development/gismap/> (accessed April 2022).

²⁰ California Department of Conservation. 2017. *State of California Williamson Act Contract Land*. [https://planning.lacity.org/eir/HollywoodCenter/Deir/ELDP/\(E\)%20Initial%20Study/Initial%20Study/Attachment%20B%20References/California%20Department%20of%20Conservation%20Williamson%20Map%202016.pdf](https://planning.lacity.org/eir/HollywoodCenter/Deir/ELDP/(E)%20Initial%20Study/Initial%20Study/Attachment%20B%20References/California%20Department%20of%20Conservation%20Williamson%20Map%202016.pdf) (accessed April 2022).

involved with the proposed projects. For purposes of cumulative agricultural and forestry resources, cumulative impacts are considered in connection with the anticipated future development of projects in the vicinity of the Project site. However, the Project proposes improvements to an existing stormwater channel which has no agricultural or forestry value for the surrounding area. As such, the Project would have no impact to cumulative impacts regarding agricultural or forestry resources.

4.3 AIR QUALITY

	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 checked="" type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

Environmental Setting

The Project site is located within the Coachella Valley, in a portion of the Salton Sea Air Basin (SSAB), within the jurisdiction of the SCAQMD. The regional climate, as well as the temperature, wind, humidity, precipitation, and amount of sunshine significantly influence the air quality in the SSAB. Climate in the Coachella Valley is a continental, desert-type climate, with hot summers, mild winters, and very little annual rainfall. Precipitation is less than six inches annually and occurs mostly in the winter months from active frontal systems and in the late summer months from thunderstorms.

The Coachella Valley is exposed to frequent gusty winds. The flat terrain of the valley and strong temperature differentials, created by intense solar heating, produce moderate winds and deep thermal convection. Wind speeds exceeding 31 miles per hour (mph) occur most frequently in April and May. The Coachella Valley also includes a blowsand zone, which is identified in SCAQMD Rule 403.1 as “the corridor of land extending two miles to either side of the centerline of the Interstate 10, beginning at the SR-111/I-10 junction and continuing southeast to the I-10/Jefferson Street interchange in Indio.” The defined blowsand zone is exposed to higher seasonal wind speeds, wind erosion, and suspended particle levels. The Project is situated approximately 5,000 feet east of the defined blowsand zone, but it is exposed to the seasonal high wind speeds like other parts of the Coachella Valley.

Ambient Air Quality

CARB monitors ambient air quality at approximately 250 air monitoring stations across the State. These stations usually measure pollutant concentrations ten feet above ground level; therefore, air quality is often referred to in terms of ground-level concentrations. Existing levels of ambient air quality, historical trends, and projections near the Project are documented by measurements made by SCAQMD, the air pollution regulatory agency in the SSAB that maintains air quality monitoring stations which process ambient air quality measurements.

The closest air monitoring station to the Project that monitors ambient concentrations of these pollutants is the Indio-Jackson Street Monitoring Station (located approximately 3 miles to the southeast). Local air quality data from 2019 to 2021 are provided in **Table 4.3-1: Ambient Air Quality Data**, which lists the monitored maximum concentrations and number of exceedances of state or federal air quality standards for each year.

Table 4.3-1: Ambient Air Quality Data

Criteria Pollutant	2019	2020	2021
Ozone (O₃)¹			
1-hour Maximum Concentration (ppm)	0.103	0.097	0.099
8-hour Maximum Concentration (ppm)	0.087	0.084	0.078
<i>Number of Days Standard Exceeded</i>			
CAAQS 1-hour (>0.09 ppm)	4	2	2
NAAQS 8-hour (>0.070 ppm)	43	42	18
Carbon Monoxide (CO)²			
1-hour Maximum Concentration (ppm)	1.27	0.82	0.76
<i>Number of Days Standard Exceeded</i>			
NAAQS 1-hour (>35 ppm)	0	0	0
CAAQS 1-hour (>20 ppm)	0	0	0
Nitrogen Dioxide (NO₂)²			
1-hour Maximum Concentration (ppm)	0.0414	0.0474	0.0356
<i>Number of Days Standard Exceeded</i>			
NAAQS 1-hour (>0.100 ppm)	0	0	0
CAAQS 1-hour (>0.18 ppm)	0	0	0
Particulate Matter Less Than 10 Microns (PM₁₀)¹			
National 24-hour Maximum Concentration	141.9	145.2	100.4
State 24-hour Maximum Concentration	80.3	53.8	100.6
State Annual Average Concentration (CAAQS=20 µg/m ³)	—	—	—
<i>Number of Days Standard Exceeded</i>			
NAAQS 24-hour (>150 µg/m ³)	0	0	0
CAAQS 24-hour (>50 µg/m ³)	4	2	5
Particulate Matter Less Than 2.5 Microns (PM_{2.5})¹			
National 24-hour Maximum Concentration	15.0	41.3	30.6
State 24-hour Maximum Concentration	15.0	41.3	30.6
<i>Number of Days Standard Exceeded</i>			
NAAQS 24-hour (>35 µg/m ³)	0	2	0
NAAQS = National Ambient Air Quality Standards; CAAQS = California Ambient Air Quality Standards; ppm = parts per million. µg/m ³ = micrograms per cubic meter; — = not measured ¹ Measurements taken at the Indio-Jackson Street Monitoring Station at 46990 Jackson St, Indio CA 92201 (CARB# 33157) ² Measurements taken at the Palm Springs-Fire Station Monitoring Station at 590 E Racquet Club Av, Palm Springs CA 92262 (CARB# 33137), which is the closest monitoring station that measures CO and NO ₂ .			
Source: All pollutant measurements are from the CARB Aerometric Data Analysis and Management system database (https://www.arb.ca.gov/adam) except for CO, which were retrieved from the CARB Air Quality and Meteorological Information System (https://www.arb.ca.gov/aqmis2/aqdselect.php).			

Existing air quality is measured and evaluated in the context of ambient air quality standards. These standards are the levels of air quality that are considered safe, with an adequate margin of safety, to protect the public health and welfare. Depending on whether the standards are met or exceeded, the SSAB is classified as being in “attainment” or “nonattainment.” The state and federal attainment status designations for the SSAB are summarized in **Table 4.3-2: Salton Sea Air Basin Attainment Status**. The SSAB is currently designated as a nonattainment area with respect to the State O₃ and PM₁₀ standards, as well as the national 8-hour O₃ and PM₁₀ standards. The SSAB is designated as attainment or unclassified for the remaining state and federal standards.

Table 4.3-2: Salton Sea Air Basin Attainment Status

Pollutant	Standard	Designation
Ozone (O ₃) (1 Hour Standard)	0.09 ppm CAAQS	Non-Attainment
Ozone (O ₃) (8 Hour Standard)	0.070 ppm 0.070 ppm NAAQS CAAQS	Non-Attainment Non-Attainment
Carbon Monoxide (CO) (1 Hour Standard)	35 ppm 20 ppm NAAQS CAAQS	Unclassifiable/Attainment Attainment
Carbon Monoxide (CO) (8 Hour Standard)	9 ppm 9 ppm NAAQS CAAQS	Unclassifiable/Attainment Attainment
Nitrogen Dioxide (NO ₂) (1 Hour Standard)	0.10 ppm 0.18 ppm NAAQS CAAQS	Unclassifiable/Attainment Attainment
Nitrogen Dioxide (NO ₂) (Annual Standard)	0.053 ppm 0.030 ppm NAAQS CAAQS	Unclassifiable/Attainment Attainment
Sulfur Dioxide (SO ₂) (1 Hour Standard)	0.075 ppm 0.25 ppm NAAQS CAAQS	Unclassifiable/Attainment Attainment
Sulfur Dioxide (SO ₂) (24 Hour Standard)	0.14 ppm 0.04 ppm NAAQS CAAQS	- Attainment
Particulate Matter (PM ₁₀) (24 Hour Standard)	150 µg/m ³ 50 µg/m ³ NAAQS CAAQS	Non-Attainment (Serious) Non-Attainment
Particulate Matter (PM ₁₀) (Annual Standard)	20 µg/m ³ CAAQS	Non-Attainment
Particulate Matter (PM _{2.5}) (24 Hour Standard)	35 µg/m ³ NAAQS	Unclassifiable/Attainment
Particulate Matter (PM _{2.5}) (Annual Standard)	12 µg/m ³ 12 µg/m ³ NAAQS CAAQS	Unclassifiable/Attainment Attainment
Lead (Pb) (30 Day Standard)	1.5 µg/m ³ CAAQS	Unclassifiable/Attainment
Lead (Pb) (3 Month Standard)	0.15 µg/m ³ NAAQS	Attainment
Hydrogen Sulfide (H ₂ S) (1 Hour Standard)	0.03 ppm CAAQS	Unclassified
Sulfates (24 Hour Standard)	25 µg/m ³ CAAQS	Attainment
NAAQS = National Ambient Air Quality Standards; CAAQS = California Ambient Air Quality Standards; ppm = parts per million, µg/m ³ = micrograms per cubic meter; - = not measured		
Source: South Coast Air Quality Management District, <i>Air Quality Management Plan</i> , 2022; United States Environmental Protection Agency, <i>Nonattainment Areas for Criteria Pollutants (Green Book)</i> , 2021.		

Based on the attainment status discussed above, the two air pollutants of concern relevant to the Coachella Valley O₃ and PM₁₀.

O₃ is a highly reactive and unstable gas that is formed when volatile organic compounds (VOCs) and nitrogen oxides (NO_x) undergo slow photochemical reactions in the presence of sunlight. O₃ concentrations are generally highest during the summer months when direct sunlight, light wind, and warm temperature conditions are favorable to the formation of this pollutant. O₃ irritates and causes inflammation of the mucous membranes and lung airways; causes wheezing, coughing, and pain when inhaling deeply; decreases lung capacity; and aggravates lung and heart problems.

PM₁₀ (particulate matter less than 10 microns) is an air pollutant consisting of solid or liquid particles of soot, dust, smoke, fumes, and aerosols. The size of the particles (10 microns or smaller, about 0.0004 inches or less) allows them to easily enter the lungs where they may be deposited, resulting in adverse health effects such as; irritation of the airways, coughing, or difficulty breathing; asthma; chronic bronchitis; irregular heartbeat; nonfatal heart attacks; and premature death in people with heart or lung disease. PM₁₀ also causes visibility reduction.

The SCAQMD is directly responsible for reducing emissions from stationary, mobile, and indirect sources. The 2022 AQMP was adopted December 2, 2022, by the SCAQMD Governing Board. The 2022 AQMP builds upon measures already in place from previous AQMPs and also includes a variety of additional strategies to air quality goals. The following is a list of SCAQMD rules that are required of construction activities associated with the Project:

- **Rule 402 (Nuisance)** – This rule prohibits the discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health, or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property. This rule does not apply to odors emanating from agricultural operations necessary for the growing of crops or the raising of fowl or animals.
- **Rule 403 (Fugitive Dust)** – This rule requires fugitive dust sources to implement best available control measures for all sources, and all forms of visible particulate matter are prohibited from crossing any property line. This rule is intended to reduce PM₁₀ emissions from any transportation, handling, construction, or storage activity that has the potential to generate fugitive dust. PM₁₀ suppression techniques are summarized below.
 - a) Portions of a construction site to remain inactive longer than a period of three months will be seeded and watered until grass cover is grown or otherwise stabilized.
 - b) All on-site roads will be paved as soon as feasible or watered periodically or chemically stabilized.
 - c) All material transported off-site will be either sufficiently watered or securely covered to prevent excessive amounts of dust.
 - d) The area disturbed by clearing, grading, earthmoving, or excavation operations will be minimized at all times.
 - e) Where vehicles leave a construction site and enter adjacent public streets, the streets will be swept daily or washed down at the end of the workday to remove soil tracked onto the paved surface.
- **Rule 403.1 (Dust Control in Coachella Valley)** – This rule is a supplemental rule to Rule 403 and is applicable to manmade sources of fugitive dust in the Coachella Valley. Rule 403.1 requires a Fugitive Dust Control Plan approved by SCAQMD, or an authorized local government agency, prior to the initiation of any construction/earth-moving activity. These requirements are only applicable to construction projects with 5,000 or more square feet of surface area disturbance.

Methodology

The air quality analysis considers construction and operational impacts associated with the Project. Where criteria air pollutant quantification was required, emissions were modeled using the California Emissions Estimator Model (CalEEMod). CalEEMod is a Statewide land use emissions computer model designed to quantify potential criteria pollutant emissions associated with both construction and operations from a

variety of land use projects. Air quality impacts were assessed according to methodologies recommended by CARB and the SCAQMD.

Construction equipment, trucks, worker vehicles, and ground-disturbing activities associated with Project construction would generate emissions of criteria air pollutants and precursors. Daily regional construction emissions are estimated by assuming construction occurs at the earliest feasible date (i.e., a conservative estimate of construction activities) and applying off-road, fugitive dust, and on-road emissions factors in CalEEMod.

a) *Conflict with or obstruct implementation of the applicable air quality plan?*

Less than Significant Impact.

The proposed project has been evaluated for consistency with the local air quality management plans, which are the 2022 AQMP, the Coachella Valley PM₁₀ SIP, and the SCAQMD Air Quality Significance Thresholds. The AQMP links local planning to the ambient air quality standards and attainment dates for criteria air pollutants. This assessment takes into consideration whether the project forms part of the expected conditions identified in local plans (General Plan Land Use and Zoning) and whether the project adheres to the County's air quality goals, policies, and local development assumptions factored into the regional 2022 AQMP. Moreover, the air emissions associated with the short-term construction activities were analyzed for the purpose of this document and are summarized under Impact "b," below. By complying with the adopted thresholds, the proposed project is also complying with the overall attainment strategies reflected in the 2022 AQMP.

The project is not expected to obstruct with implementation of the applicable air quality plans because it would not generate population growth above the levels projected in the County of Riverside General Plan, which form the basis of the emissions attainment dates of the SCAQMD 2022 AQMP. Based on the quantitative air emissions findings provided in Impact "b", the project's short-term emissions would not cause violations to regional or localized emissions thresholds, which are established to comply with the NAAQS, CAAQS, or the attainment efforts included in the 2022 AQMP, the Coachella Valley PM₁₀ SIP and other relevant regional plans. Therefore, the proposed project would not interfere with the ability of the region to comply with federal and State ambient air quality standards and plans. Less than significant impacts are anticipated relative to conflict with or obstruction of implementation of the applicable air quality plan following the implementation of standard conditions.

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?*

Less than Significant Impact with Mitigation Incorporated.

Construction Emissions

Project construction would generate short-term emissions of criteria air pollutants. The criteria pollutants of primary concern within the Project area include O₃-precursor pollutants (i.e., ROG and NO_x) and PM₁₀ and PM_{2.5}. Construction-generated emissions are short term and of temporary duration, lasting only as long as construction activities occur, but would be considered a significant air quality impact if the volume of pollutants generated exceeds the SCAQMD's thresholds of significance.

Construction results in the temporary generation of emissions resulting from construction equipment and motor vehicle exhaust associated worker trips, and the hauling of construction supplies, especially on unpaved surfaces. Emissions of airborne particulate matter are largely dependent on the amount of ground

disturbance associated with site preparation activities as well as weather conditions and the appropriate application of water.

Fugitive dust emissions may have a substantial, temporary impact on local air quality. In addition, fugitive dust may be a nuisance to those living and working in the Project vicinity. Uncontrolled dust from construction can become a nuisance and potential health hazard to those living and working nearby. SCAQMD Rules 402, 403, and 403.1 (prohibition of nuisances, watering of inactive and perimeter areas, track out requirements, etc.), are applicable to the Project and were applied in CalEEMod to minimize fugitive dust emissions. The implementation of Rules 402, 403, and 403.1 dust control techniques will minimize PM₁₀ and PM_{2.5} concentrations.

Construction-generated emissions associated with the Project were calculated using the CARB-approved CalEEMod computer program, which is designed to model emissions for land use development projects, based on typical construction requirements. See **Appendix A: Air Quality/Greenhouse Gas Modeling Data** for more information regarding the construction assumptions used in this analysis. Daily construction-generated emissions are summarized in **Table 4.3-3: Construction Emissions**.

Table 4.3-3: Construction Emissions

Emissions	Maximum Pounds Per Day					
	ROG	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Unmitigated Emissions ¹						
Construction Activity	6.42	132	62.6	0.56	33.4	11.9
SCAQMD Threshold	75	100	550	150	150	55
Exceed SCAQMD Threshold?	No	Yes	No	No	No	No
Mitigated Emissions ²						
Construction Activity	2.69	93.3	62.6	0.56	31.7	10.3
SCAQMD Threshold	75	100	550	150	150	55
Exceed SCAQMD Threshold?	No	No	No	No	No	No
ROG = Reactive Organic Gases; NO _x = Nitrogen Oxides; CO = Carbon Monoxide; SO ₂ = Sulfur Dioxide; PM ₁₀ = Particulate Matter 10 microns in diameter or less; PM _{2.5} = Particulate Matter 2.5 microns in diameter or less						
1. SCAQMD Rule 403 Fugitive Dust applied. The Rule 403 reduction/credits include the following: properly maintain mobile and other construction equipment; water exposed surfaces three times daily; and limit speeds on unpaved roads to 15 miles per hour. Reductions percentages from the SCAQMD CEQA Handbook (Tables XI-A through XI-E) were applied. No mitigation was applied to construction equipment. Refer to Appendix A for Model Data Outputs.						
2. Mitigation includes the incorporation of MM AQ-1 . MM AQ-1 requires off-road equipment 50 horsepower or greater to meet CARB Tier 4 Final standards during construction activities.						
Source: CalEEMod version 2022.1.1.7. Refer to Appendix A for model outputs.						

As shown in **Table 4.3-3**, the highest daily construction air pollutant emissions are projected to exceed the SCAQMD’s significance threshold for NO_x. The majority of NO_x emissions are generated from construction equipment exhaust. **MM AQ-1** requires all off-road construction equipment greater than 50 horsepower to meet CARB Tier 4 Final emission standards. As shown in **Table 4.3-3**, with the incorporation of **MM AQ-1**, NO_x emissions would be reduced below SCAQMD significance thresholds.

Operations Emissions

Project-generated operational emissions would be primarily associated with maintenance activities occurring twice yearly or after major storm events. Maintenance activities would include mulching the vegetation, repairing erosions along the front and backsides of the slope and hauling debris to the transfer station. Operational emissions associated with Project maintenance are summarized in **Table 4.3-4: Operational Emissions**. **Table 4.3-4** shows that the highest daily air pollutant emissions during maintenance activities would not exceed any of the SCAQMD’s operational significance thresholds. Therefore, operational emissions would result in a less than significant long-term regional air quality impact.

Table 4.3-4: Operational Emissions

Emissions	Maximum Pounds Per Day					
	ROG	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Maintenance Activity	2.06	15.6	17.9	0.04	1.31	0.66
SCAQMD Threshold	55	55	550	150	150	55
Exceed SCAQMD Threshold?	No	No	No	No	No	No

Source: CalEEMod version 2022.1.1.7. Refer to Appendix A for model outputs.

Mitigation Measures

MM AQ-1 All off-road diesel-powered construction equipment greater than 50 horsepower meets California Air Resources Board Tier 4 Final off-road emissions standards or incorporate CARB Level 3 Verified Diesel Emission Control Strategy (VDECS). Requirements for Tier 4 Final equipment and the option for Level 3 VDECS shall be included in applicable bid documents and successful contractor(s) must demonstrate the ability to supply such equipment. A copy of each unit’s Best Available Control Technology (BACT) documentation (certified tier specification or model year specification), and CARB or SCAQMD operating permit (if applicable) shall be provided to the CVWD at the time of mobilization of each applicable unit of equipment.

- c) **Expose sensitive receptors to substantial pollutant concentrations?**
Less than Significant Impact.

Localized Construction Significance Analysis

The nearest sensitive receptors are residential homes in the Sun City Shadow Hills community, located approximately 300 feet (91 meters) to the northwest of the project site. To identify impacts to sensitive receptors, the SCAQMD recommends addressing LSTs for construction. LSTs were developed in response to SCAQMD Governing Boards’ Environmental Justice Enhancement Initiative (I-4). The SCAQMD provided the *Final Localized Significance Threshold Methodology* (dated June 2003 [revised 2008]) for guidance. The LST methodology assists lead agencies in analyzing localized impacts associated with Project-specific emissions.

Since CalEEMod calculates construction emissions based on the number of equipment hours and the maximum daily soil disturbance activity possible for each piece of equipment, **Table 4.3-5: Equipment-Specific Grading Rates** is used to determine the maximum daily disturbed acreage for comparison to LSTs. The appropriate SRA for the localized significance thresholds is the Coachella Valley (SRA 30) since this area includes the Project. LSTs apply to NO₂, CO, PM₁₀, and PM_{2.5}. The SCAQMD produced look-up tables for projects that disturb areas less than or equal to 5 acres in size. Project construction is anticipated

to disturb a minimum of 6 acres in a single day during the grading phase. As the LST guidance provides thresholds for projects disturbing 1-, 2-, and 5-acres in size and the thresholds increase with size of the site, the LSTs for a 5.0-acre threshold was conservatively use for this analysis.

Table 4.3-5: Equipment-Specific Grading Rates

Construction Phase	Equipment Type	Equipment Quantity	Acres Graded per 8-Hour Day	Operating Hours per Day	Acres Graded per Day
Grading	Tractors	3	0.5	8	1.5
	Graders	2	0.5	8	1
	Dozers	1	0.5	8	0.5
	Scrapers	3	1	8	3
	Total Acres Graded per Day				
Source: CalEEMod version 2022.1. Refer to Appendix A for model outputs.					

The nearest sensitive receptor is a residence located approximately 300 feet (91 meters) to the northwest of the active construction zone for the proposed Project. LST thresholds are provided for distances to sensitive receptors of 25, 50, 100, 200, and 500 meters. Therefore, the LST for receptors located at 91 meters was interpolated from the LSTs from 50 and 100 meters and utilized in this analysis. **Table 4.3-6: Localized Significance of Construction Emissions** presents the results of localized emissions during each construction activity for the Project.

Table 4.3-6: Localized Significance of Construction Emissions

Construction Activity	Emissions (Maximum Pounds Per Day)			
	NO _x	CO	PM ₁₀	PM _{2.5}
Site Preparation	40.81	34.28	9.85	5.11
Grading	47.10	41.86	13.34	5.75
Project Construction	13.33	15.75	0.57	0.52
Paving	6.89	9.02	0.34	0.32
Site Cleanup	44.97	43.17	8.92	5.11
<i>Maximum Emissions</i>	<i>47.10</i>	<i>43.17</i>	<i>13.34</i>	<i>5.75</i>
<i>SCAQMD Localized Screening Threshold (adjusted for 5 acres at 91 meters)</i>	<i>410</i>	<i>4,954</i>	<i>63</i>	<i>18</i>
Exceed SCAQMD Threshold?	No	No	No	No
NO _x = Nitrogen Oxides; CO = Carbon Monoxide; PM ₁₀ = Particulate Matter 10 microns in diameter or less; PM _{2.5} = Particulate Matter 2.5 microns in diameter or less				
Source: CalEEMod version 2022.1 Refer to Appendix A for model outputs.				

As shown in **Table 4.3-6**, construction emissions from the Project are below SCAQMD LST. Significant impacts would not occur concerning LSTs during construction.

Localized Operational Significance Analysis

Project operations would only generate emissions during maintenance of the Channel. These maintenance activities would include mulching the vegetation, repairing erosions along the front and backsides of the slope, and hauling debris to the transfer station. To identify impacts to sensitive receptors, LSTs for operations were used to identify from onsite maintenance activities. LST for receptors located at 91 meters, the distance to the nearest sensitive receptor, was interpolated from the LSTs from 50 and 100 meters and the 5-acres LST threshold was conservatively used for the Project, as LSTs increase with the size of the site.

Emissions shown in **Table 4.3-7: Localized Significance of Operational Emissions** includes all onsite maintenance-related equipment. **Table 4.3-7** shows that the maximum daily emissions of these pollutants for Project operations would not result in significant concentrations of pollutants at nearby sensitive receptors.

Table 4.3-7: Localized Significance of Operational Emissions

Activity	Emissions (Maximum Pounds Per Day)			
	NO _x	CO	PM ₁₀	PM _{2.5}
Maintenance Equipment	15.51	16.81	1.15	0.62
SCAQMD Localized Screening Threshold (adjusted for 5 acres at 91 meters)	410	4,954	15	4
Exceed SCAQMD Threshold?	No	No	No	No
NO _x = Nitrogen Oxides; CO = Carbon Monoxide; PM ₁₀ = Particulate Matter 10 microns in diameter or less; PM _{2.5} = Particulate Matter 2.5 microns in diameter or less				
Source: CalEEMod version 2022.1 Refer to Appendix A for model outputs.				

Construction-Related Diesel Particulate Matter

Project construction would generate DPM emissions from the use of off-road diesel equipment required. The amount to which the receptors are exposed (a function of concentration and duration of exposure) is the primary factor used to determine health risk (i.e., potential exposure to toxic air contaminants (TAC) emission levels that exceed applicable standards). Health-related risks associated with diesel exhaust emissions are primarily linked to long-term exposure and the associated risk of contracting cancer.

The use of diesel-powered construction equipment would be temporary and episodic. The duration of exposure would be short and exhaust from construction equipment would dissipate rapidly. Current models and methodologies for conducting health risk assessments are associated with longer-term exposure periods of 9, 30, and 70 years, which do not correlate well with the temporary and highly variable nature of construction activities. The sensitive receptors nearest the Project site are single-family residence uses located approximately 300 feet (91 meters) to the northwest of the Project site.

California Office of Environmental Health Hazard Assessment has not identified short-term health effects from diesel particulate matter (DPM). Construction is temporary and would be transient throughout the site (i.e., move from location to location) and would not generate emissions in a fixed location for extended periods of time. Construction activities would be subject to and would comply with California regulations limiting the idling of heavy-duty construction equipment to no more than five minutes to further reduce nearby sensitive receptors' exposure to temporary and variable DPM emissions. For these reasons, DPM generated by Project construction activities, in and of itself, would not expose sensitive receptors to substantial amounts of air toxins and the Project would result in a less than significant impact.

d) Result in other emissions (such as those leading to odors adversely affecting a substantial number of people?)

Less than Significant Impact.

Construction

Odors that could be generated by construction activities are required to follow SCAQMD Rule 402 to prevent odor nuisances on sensitive land uses. SCAQMD Rule 402, Nuisance, states:

A person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to

any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.

During construction, emissions from construction equipment, such as diesel exhaust, and volatile organic compounds from architectural coatings and paving activities may generate odors. However, these odors would be temporary, are not expected to affect a substantial number of people and would disperse rapidly. Therefore, impacts related to odors associated with the Project's construction-related activities would be less than significant.

Operations

The SCAQMD *CEQA Air Quality Handbook* identifies certain land uses as sources of odors. These land uses include agriculture (farming and livestock), wastewater treatment plants, food processing plants, chemical plants, composting facilities, refineries, landfills, dairies, and fiberglass molding. The Project would not include any of the land uses that have been identified by the SCAQMD as odor sources. Therefore, the Project would not create objectionable odors.

Mitigation Measures

No mitigation measures are necessary.

Cumulative Impacts

In accordance with SCAQMD's methodology, any project that produces a significant project-level regional air quality impact in an area that is in nonattainment contributes to the cumulative impact. The greatest source of emissions in the SSAB is mobile sources. Due to the extent of the area potentially impacted from cumulative project emissions, the SCAQMD considers a project cumulatively significant when project-related emissions exceed the SCAQMD regional emissions thresholds. The SSAB is currently designated as a nonattainment area with respect to the State O₃ and PM₁₀ standards, as well as the national 8-hour O₃ and PM₁₀ standards. As discussed above, the Project would not exceed SCAQMD thresholds for construction or operational emissions and would therefore not contribute to significant cumulative impacts.

4.4 BIOLOGICAL RESOURCES

Would the project:	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game 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, regulations or by the California Department of Fish and Game 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	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input 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 and an Aquatic Resources Delineation Report were prepared by SWCA Environmental Consultants (SWCA) for the Project in 2024. These reports are available in **Appendix B1** and **Appendix B2** respectively. As part of the preparation of these reports, pedestrian surveys of the Project site and literature searches were completed on March 28, 2023. During these pedestrian surveys, flora and fauna were recorded and representative photography were collected, these images are available in their respective reports.

Flora

The Project site is highly disturbed with evidence of periodic vegetation management apparent during both the field survey and from aerial imagery. As a result of this on-going management, vegetation is absent in the Channel. The Whitewater River, where the Channel would discharge stormwater flows, three plant species were identified: saltcedar (*Tamarix ramosissima*), Bermuda grass (*Cynodon dactylon*), and London rocket (*Sisymbrium irio*). None of these species are considered as special status. SWCA identified 26 special-status plant species that have occurred in the vicinity of the Project site. None of these species were identified during the March 28, 2023, field survey and none are expected to occur within the Project site due to the on-going vegetation management activities that occur regularly. Refer to Appendix C of the Biological Resources Assessment for a detailed list of all special-status species (**Appendix B1**).

Fauna

During the pedestrian site survey by SWCA, four animal species were observed: Anna's hummingbird (*Calypte anna*), killdeer (*Charadris vociferus*), rock pigeon (*Columba livia*), and the American crow (*Corvus brachyrhynchos*). No insects, amphibians, reptiles, or mammals nor evidence of site usage (e.g., burrows, dens, tracks, nests) were detected. SWCA identified 30 special-status animal species that have occurred within the vicinity of the Project site. None were observed on-site during pedestrian surveys, and none have a higher than a low potential for occurrence within the Project site due to the ongoing disturbance and lack of vegetative habitat. Refer to Appendix C of the Biological Resources Assessment for a detailed list of all special-status species (**Appendix B1**).

Nesting Birds

A nesting birds survey was not specifically completed as part of the pedestrian site survey, however, during ~~that the field~~ survey, no nesting birds were incidentally detected. Marginal habitat for ground-nesting birds is present ~~as the value of ground habitat~~ but its value is greatly diminished due to the ongoing vegetation management and ground disturbing activities that occur on-site. Ground-nesting birds include birds such as the burrowing owl. Vegetation-based nesting, such as in grasslands, shrubs, and/or trees, is not expected within the Project site due to the lack of habitat.

Wildlife Movement Corridors and Habitat Linkages

Wildlife corridors and habitat linkages are features that promote habitat connectivity. Wildlife corridors are typically discrete linear features within a landscape that are constrained by development or other non-habitat areas. Habitat linkages are networks of corridors through and between larger natural open space that facilitate movement of wildlife, thus providing long-term resilience of ecosystems against the detrimental effects of habitat fragmentation. Regional connection between high-quality open space habitats is critical to ongoing interchange of genetic material between populations, wildlife movement to escape natural disasters (fires, floods), colonization and expansion of populations, and plant propagation.

The Project is not within defined regional movement corridors or habitat linkages. Local wildlife movement may occur in the vicinity; however, the highly disturbed condition and lack of cover vegetation of the site greatly reduces its value to wildlife for safe movement across open areas.

Jurisdictional Aquatic Resources

The Review Area includes two jurisdictional aquatic resources: the CVSC and the Coachella Canal, totaling 1.1 acres (1,000 linear feet) non-wetland WOUS/WOS and a total of 2.53 acres (1,000 linear feet) CDFW Streambed, which all occur outside the Project Area. The proposed project includes work within the Channel which is assessed as uplands. The project has been designed to avoid impacts to the CVSC and the Coachella Canal which occur adjacent but outside the project area. (**Appendix B2**).

- a) ***Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?***

Less than Significant Impact with Mitigation Incorporated.

As previously discussed, and as outlined in the Biological Resources Assessment, no special-status species were observed on the Project site during pedestrian site surveys. A full list of all 26 special-status plant and 30 special-status animal species is available in Appendix C of the Biological Resources Assessment (**Appendix B1**). None of these species were observed or have a high likelihood for occurrence

on the Project site due to the ongoing maintenance and vegetation clearing that currently occurs on the Project site.

The Project consists of infrastructure improvements to the Channel that include regrading the Channel bottom and the construction of reinforced concrete side slopes along the banks of the Channel. This would stabilize the slopes of the Channel and remove all potential habitat from these areas of the Project. The bottom of the Channel would continue to be earthen and be maintained during operations similarly as it is in its existing conditions. Vegetation would be removed, and the Channel bottom would continue to be disturbed on a regular ongoing basis or as needed. As such, no new habitat would be able to form during Project operation. No impact to sensitive or special-status species would occur during construction or operations of the Project due to a lack of existing habitat and high disturbance levels. No mitigation is necessary.

For the temporary shoofly that would be required, as the shoofly would be constructed outside of the surveyed area covered under the Biological Resources Assessment. On December 19, 2024, the shoofly easement was assessed by a CVWD biologist, Solan Watts, to determine whether the site area was consistent with results of the previous biological resource field assessment and if **MMs BIO-1** and **BIO-2** of the ISMND would adequately protect local plants and wildlife. A brief summary of their survey is available as **Appendix B3**. The site, located adjacent to Avenue 42 in Indio, California, was highly disturbed and showed heavy signs of trash debris and significant human activity. No wildlife was observed during the survey, though tracks of Common Raven (*Corvus corax*), Western Side-blotched Lizard (*Uta stansburiana*), and Coyote (*Canis latrans*) were found. The living plants on site included *Atriplex polycarpa*, *Atriplex canescens*, *Palafoxia arida*, and *Salsola tragus*. The primary concern for protecting wildlife on the site would be the protection of nesting birds. The findings indicate that **MMs BIO-1** and **BIO-2** are sufficient to protect native flora and fauna during the shoofly development. Impacts would be less than significant.

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?

No Impact.

As described in the Biological Resources Assessment and the Aquatic Resources Delineation Report, no riparian habitat or other sensitive natural communities were observed on the Project site during pedestrian site surveys. No riparian habitat or other sensitive natural communities were reported in literature that was investigated as part of these assessments. The Project would not create riparian habitat or introduce sensitive natural communities. As such, no impact would occur, and no mitigation is necessary.

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?

Less than Significant Impact.

As identified in the Aquatic Resources Delineation Report, a total of 1.1 acres of non-wetland WOUS/waters of the State (WOS) and 2.53 acres of CDFW streambed and riparian habitat are present in the vicinity of the Project site. Specifically, the CVSC is the resource containing the non-wetland WOUS/WOS and CDFW streambed and is located immediately adjacent to, but outside of the Project boundaries, refer to Figure 4 of **Appendix B2**. However, these features were non-wetland features and consist of the Coachella Canal and the CVSC. It should be noted that the Project has been designed to avoid impacts to these jurisdictional features. In addition, avoidance of jurisdictional features would occur and a “no work” zone would be

established. During Project operation, proposed conditions would be similar to existing conditions in that the intensity of use would not change and the overall function of the Channel would be maintained. Impacts would be less than significant.

- 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?***

Less than Significant Impact with Mitigation Incorporated.

Under the California Fish and Game Code and the Migratory Bird Treaty Act, nesting birds are protected. These codes and rules prohibit the take of all birds and their active nests including raptors and other migratory nongame birds. Nesting season is generally defined as starting on January 1 and ending September 15. As described above and in the Biological Resources Assessment, there is minimal habitat for nesting birds on site and within the Project vicinity. Despite no nesting birds were observed within the Project site during pedestrian site surveys, construction activities for the Project during the nesting season would potentially cause adverse effects on any nesting birds, if present. As such, **MMs BIO-1 and BIO-2** would be implemented by the Project which would require a pre-construction nesting bird and burrowing owl survey(s) to be completed within a 30-day window prior to the commencement of construction. This survey would encompass the Project site and a surrounding 300-foot buffer around the Project site. With the implementation ~~on~~ of mitigation measures, impacts would be less than significant.

- e) *Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?***

No Impact.

- f) *Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?***

No Impact.

The Project is located in the City of Indio and the CVMSHCP. The City's General Plan does not designate the Project site as part of a conservation plan, nor is it located within the CVMSHCP conservation area for any plant or animal species. There are no trees on-site that would be protected under a tree preservation policy or ordinance. Additionally, the CVWD is a permittee under the CVMSHCP and as such, the Project is considered a "permitted-approved" activity outside of a conservation area. Further, the Project is considered a "water management project" and the Project is a "Covered Activity" under Section 7.1 of the CVMSHCP for covered activities outside conservation areas. As such, no impact would occur, and no mitigation is necessary.

Mitigation Measures

- MM BIO-1** To the greatest extent feasible, the Project will avoid construction activities during the peak nesting season (February 1 through September 15). Regardless of the time of year, nesting bird surveys shall be performed by a qualified avian biologist no more than 3 days prior to all vegetation removal or ground-disturbing activities throughout all portions of the Project. 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 preliminarily 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. Construction activities may not occur inside the established buffers, which shall remain on-site until a qualified biologist determines the young have fledged or the nest is no longer active. For sensitive bird species, such as federal and/or California state listed and candidate species, and raptors, 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 shall determine the recommended monitoring frequency for other avian species based on the nest location, species, and its tolerance to disturbance. The qualified biologist has the authority to stop work if nesting pairs exhibit signs of disturbance.

~~If construction (including ground-disturbing activities and vegetation trimming and/or removal) would occur during the nesting bird season (raptors: 1 January to 30 June; non-corvids: 1 February through 15 September), a qualified biologist shall conduct preconstruction nesting bird surveys within 30 days of construction start-up and continuing weekly up to three days before start-up. The survey area shall include the project area (disturbance footprint) and a surrounding 300-foot buffer area. Active bird nests shall be protected by installation of temporary physical barriers that define a buffer area of 100 feet surrounding each nest. Buffer size may be reduced or increased based on the bird species present and on the advice of the qualified biologist (e.g., smaller buffer for songbirds, larger buffer for raptors). In no case shall buffers be less than 50 feet. No construction work, equipment, or personnel shall enter the buffer area. Protective buffers shall remain in place until the biologist determines that the nest(s) are no longer active and the chicks have permanently fledged (left the nest) and a second nesting attempt has not begun.~~

MM BIO-2

Focused burrowing owl surveys shall be conducted by a qualified biologist in accordance with the Staff Report on Burrowing Owl Mitigation (2012 or most recent version) prior to ground-disturbing activities. If burrowing owls are detected during the focused surveys, the qualified biologist and Project proponent shall prepare a Burrowing Owl Avoidance and Monitoring Plan that shall be submitted to CDFW for review and approval prior to commencing Project activities. The Burrowing Owl Avoidance and Monitoring Plan shall describe proposed avoidance and monitoring actions, including measures necessary to avoid take of burrowing owl individuals, nests, and eggs. The Burrowing Owl Avoidance and Monitoring Plan shall include the number and location of occupied burrow sites (occupied site means at least one burrowing owl or its sign has been observed within the last three years; may be indicated by owl sign including feathers, pellets, prey remains, eggshell fragments, or excrement at or near a burrow entrance or perch site), acres of burrowing owl habitat that will be impacted, details of site monitoring, and details on proposed buffers and other avoidance measures.

For all segments of Project construction, 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 repeated when there is a pause in construction of more than 30 days. 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 nests, buffers of appropriate distances will be established based on the planned level of disturbance and the time of year, consistent with the Staff Report on Burrowing Owl Mitigation (2012 or most recent version), Project activities within these established buffers shall be immediately halted.

~~If construction is to occur during 1 February to 15 September, burrowing owl surveys will be conducted. Burrowing owl surveys will be completed following the CDFW 2012 Staff Report on Burrowing Owl Mitigation. Any located burrowing owls or potential burrows (burrows with openings > 4 inches) will be reported to CDFW via CNDDDB online reporting system.~~

Cumulative Impacts

Cumulative impacts refer to incremental effects of an individual project when assessed with the effects of past, current, and proposed projects. The temporary direct and/or indirect impacts of the Project would not result in cumulative impacts (CEQA §15310) to environmental resources within the region of the Project site. The Project site is located completely within the City of Indio, and the Project Applicant is the CVWD, a CVMSHCP permittee.

The Project site is virtually void of vegetation due to the on-going vegetation management activities that are currently employed across the entirety of the Project site. The Project has been designed and mitigation measures would be implemented to remain in compliance with all CVMSHCP conservation goals and guidelines and therefore will not result in an adverse cumulative impact.

4.5 CULTURAL RESOURCES

	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to in § 15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 interred outside of dedicated cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

A Cultural Resources Assessment (CRA) was prepared by SWCA Environmental Consultants (SWCA) for the Project in January 2024. This assessment is available in **Appendix C**. This Project-specific CRA was prepared to determine whether the Project would cause a substantial adverse change to any “historical” or “archaeological” resources that may exist in or around the Project site, and a pedestrian field survey. A literature/records search and pedestrian field survey were completed as part of the CRA, their results are provided below.

Records Search Results

SWCA requested a confidential records search of the California Historical Resources Information System (CHRIS) records at the Eastern Information Center (EIC) on May 13, 2022, to identify previous studies completed within a 1-mile radius of the Project site. The CHRIS records search identified 97 cultural resource investigations that have been previously conducted. Of these, 14 intersect the Project site. Of these 14 studies, one is an overview study, one is a sensitivity model, one is a history and evaluation of the Coachella Canal, one is a summary historic property survey report for the California Department of Transportation, and the remaining 10 included field investigations. Additional details for all 97 records are available in Table 2 of the CRA (**Appendix C**).

Additionally, the CHRIS records identified 84 previously recorded cultural resources within a 1-mile radius of the Project area, three of which intersect with the Project site. One is an archaeological site (P-33-007425/CA-RIV-005799), and the other two are built environment resources: the Coachella Canal (P-33-005705/CA-RIV-012999) and the CVSC (P-33-017259/CA-RIV-010847). Additional details for all 84 records are available in Table 3 of the CRA (**Appendix C**).

P-33-007425/CA-RIV-005799

Site P-33-0007425/CA-RIV-005799 is located to the west of the northern portion of the project area, with a very small portion overlapping the project area. This resource consists of an archaeological site recorded by G.E. Collins in 1995. Its boundaries were established as the dirt road along the western edge of the on the east, Avenue 42 on the south, the Coachella Canal on the west, and a wash and road on the north. The site consisted of a light scatter of ceramics, milling fragments, fire-affected rock, broken river cobble, various types of shell, three hearth areas, eight structured depressions, and an intrusive historic trash component. Ceramics included Colorado Buff, Tizon, and Salton Buff. Also noted were burned bird and small mammal bone, burned tortoiseshell, fish vertebra, small faunal teeth, burned clay fragments, metate and mano fragments, broken granite and quartz fragments, unfired clay balls/nodules, and many depressed areas with associated ceramics and burned bone. Collins noted the body of the site was in good condition

although trash dumping and previous road and agricultural disturbances had occurred at the north end of the site. Trash was also observed to be scattered throughout the site. The site has not been previously evaluated for the NRHP or CRHR.

P-33-005705/CA-RIV-012999

This resource consists of the Coachella Canal, which was constructed between 1938 and 1948, and its distribution system, which was completed in 1954. The canal was constructed to deliver water to the Coachella Valley and a portion of Imperial County. In its entirety, the canal is 123.5 miles long between the diversion from the All-American Canal and the terminal reservoir, Lake Cahuilla. Various segments of the canal have been recorded over the years as part of different projects. As summarized in 2015 by Josh Smallwood of Applied EarthWorks: subsequent to an evaluation report completed by ASM Affiliates, Inc., in 2003, the U.S. Bureau of Reclamation “formally determined the portions of the Canal between Siphons 7 and 14, and Siphons 15 and 32 to be eligible for the NRHP under Criteria A and C.” However, the State Historic Preservation Office (SHPO) concurred only with its eligibility under Criterion A. The resource’s (local and state) significance under Criterion A stems from its role in the development of the Imperial and Coachella Valleys: it provided a reliable water supply from the Colorado River and All-American Canal and laid the foundation for growth in the Coachella Valley’s desert terrain. The resource’s period of significance is 1938 to 1954.

Between 2007 to 2009, ASM Affiliates, Inc., recorded and evaluated the segment of the Coachella Canal between Siphon 32 and its terminus at Lake Cahuilla (which includes the canal segment within the current project area), and recommended the Coachella Canal and its distribution system eligible for the NRHP under Criteria A and C. There had been no concurrence from SHPO on that eligibility finding as of the date of Smallwood’s DPR forms.

P-33-017259/CA-RIV-010847

This resource consists of the Coachella Valley Stormwater Channel or CVSC. The CVSC generally follows the natural course of the Whitewater River from Point Happy (near present-day Miles Avenue and Washington Street southwest of the current project area) to the Salton Sea. The CVSC functions as part of the area’s stormwater/flood protection system in conjunction with the WWRSC, the name given to the northern section of the Whitewater River between Palms Springs and Point Happy. Together, the CVSC and WWRSC are approximately 50 miles long and convey storm/flood waters to the Salton Sea. Various segments of the CVSC have been recorded as part of different projects, including the segment within the current project area. In 2016, Ballester recommended the segment of the CVSC from Point Happy to the community of Thermal (southeast of Indio) ineligible for listing in the NRHP and CRHR. An approximately 1,300-foot-long segment of the CVSC is located at the southeast end of the current project area.

Field Survey

On April 13 and 14, 2023, SWCA archaeologists conducted a cultural resources survey. The survey consists of walking the Project site in parallel transects spaced no more than 15 meters apart. The ground surface was examined for the presence of prehistoric artifacts (e.g., flaked stone tools, tool-making debris, or stone milling tools), ecofacts (e.g., shell, fire-affected rock, or bone), historic-era artifacts (e.g., metal, glass, or ceramics), sediment discoloration that might indicate the presence of a cultural midden, depressions, and other features that might indicate the former presence of structures or buildings (e.g., post-holes or foundations) or occupations (e.g., hearths or bedrock milling features).

During the archaeological field survey, a total of nine prehistoric ceramic fragments were recorded at six locations in the northern portion of the project area. While the prehistoric ceramic fragments were located

between 60 and 170 feet (18–52 m) east of the existing boundary of P-33-0007425/CA-RIV-005799, their description indicates they are likely associated with the site but had been moved to the east as the result of agricultural and road grading activities.

All prehistoric ceramic fragments were recorded within the push berms along the unpaved, unnamed road extending through the project area along with unpaved Madison Street. The ceramic fragments consisted of three grayware body sherds (Artifacts 1, 2, and 4), three redware body sherds (Artifacts 5, 6, and 7), one redware rim sherd (Artifact 3), and two brownware body sherds (Artifacts 8 and 9).²¹ Refer to the CRA in **Appendix C** for images (Figures 21 through 29) of the artifacts in question.

Evaluation of P-33-0007425/CA-RIV-005799

Site P-33-0007425/CA-RIV-005799 was described as a light scatter of ceramics, ground stone tools, shell, faunal bone, evidence of hearth areas, and eight structured depressions. It was noted that while the central portion of the site was in good condition, intrusive historic trash was observed at the north end of the site.

During the archaeological field survey, a total of nine prehistoric ceramic fragments (Artifacts 1 through 9) were recorded within push berms at six locations in the northern portion of the project area. All nine artifacts are outside of the previously recorded boundary of P-33-0007425/CA-RIV-005799. Of the nine artifacts, seven are outside of the established construction grading limits. Four artifacts (Artifacts 1 through 4) were observed outside of the grading limits to the west of Madison Street within the push berms of an existing dirt road. The remaining five artifacts (Artifacts 5 through 9) are within the road berm to the east of paved Madison Street. Of these five artifacts, three (Artifacts 6 through 8) are outside of the grading limits. The remaining two artifacts (Artifact 5 and Artifact 9) are within the grading limits. Artifact 5 is also within a proposed access road alignment. No artifacts were observed within the portion of the previously recorded site boundary that overlaps the project area's direct footprint. The ceramic fragments consisted of three grayware body sherds (Artifacts 1, 2, and 4), three redware body sherds (Artifacts 5, 6, and 7), one redware rim sherd (Artifact 3), and two brownware body sherds (Artifacts 8 and 9). While the prehistoric ceramic fragments were located east of the existing boundary of P-33-0007425/CA-RIV-005799, their description indicates they are likely associated with the site but had been moved to the east as the result of past agricultural and road grading activities.

All prehistoric ceramic fragments were recorded within the push berms along the unpaved unnamed road through the northernmost portion of the project area, and paved Madison Street. There were no indications of intact features such as hearths, dwellings, or other site cultural constituents associated with site P-33-0007425/CA-RIV-005799 within the project area. The following sections provide a research design and evaluation of the portion of the site P-33-0007425 within the project area. It should be stressed that this evaluation does not pertain to the entire site, the majority of which occurs outside the project area and will not be impacted by the project.

a) *Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?*

Less than Significant Impact.

While site P-33-0007425/CA-RIV-005799 has not been evaluated in its entirety and a recommendation of eligibility cannot be made for the site as a whole, SWCA provided an evaluation for the portion of P-33-0007425/CA-RIV-005799 located within the current project area recommended that the site is not eligible for listing in the National Register of Historic Places (NRHP)/ California Register of Historic Resources

²¹ A sherd is a broken piece of ceramic material.

(CRHR) and, therefore, not considered to be a historical resource or a unique archaeological resource under the NRHP or CRHR. As a result, the Project would not cause a significant direct adverse impact to a historical resource.

Additionally, the Coachella Canal is a historical resource pursuant to CEQA, as discussed above. While previous documentation for the canal did not identify character-defining features of the resource, noted features of the Canal that is within the Project boundaries on the northern portions of the Project site include its alignment, width and depth, concrete lining, and concrete siphon that crosses the Channel. The Canal would be protected in place, maintaining its current alignment, dimensions, concrete lining, and concrete siphon as is. The Project would protect in place the existing features of the Coachella Canal, would expand the existing Channel drop structure that is over the canal, and would channelize the Channel with concrete side slopes. While this would create a slight change in the setting of the Coachella Canal, the proposed improvements to the drop structure are similar in design and materials to what is existing. This would not result in material impairment of the historical resource. The Coachella Canal would maintain the physical characteristics that convey its historical significance, and would remain eligible for the NRHP under Criterion A. The Project would not cause a significant direct adverse impact to the historical resource. As such, there would be a less than significant impact to historical resources and no mitigation is necessary.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?

Less than Significant Impact with Mitigation Incorporated.

As previously discussed, the CHRIS records search identified one archaeological resource overlapping a small section of the northern portion of the project area (P-33-007425/CA-RIV-005799) and one a multicomponent resource immediately adjacent to the west of the central portion of the project area site (P-33-001768/CA-RIV-001768). Previous recordings of the resources noted extensive disturbance and the presence of historic-age and modern refuse. The Sacred Lands File (SLF) search completed by the Native American Heritage Commission (NAHC) did not identify any recorded Sacred Lands within, or within the vicinity of, the project area.

The portion of P-33-0007425/CA-RIV-005799 located within the current project area is recommended to be a non-contributing element to the site's eligibility for the NRHP and the CRHR, were it to be formally evaluated for listing. Therefore, the portion of the site in the project area is not considered to be a historical resource or a unique archaeological resource for the purposes of CEQA.

However, given the nature of archaeological resources potentially being buried below ground, and due to the Project site requiring a large amount of grading and other excavation activities, there is a possibility for the inadvertent find of archaeological resources, not previously documented, on the Project site. As such, **MM CUL-1**, detailed below, would be implemented which provides for the stopping of construction until such a time as a qualified archaeologist is able to evaluate any potential archaeological resources encountered on site. Further, the Project would implement **MM CUL-2** through **MM CUL-5** which require a Native American monitor on site during ground disturbing activities, the development and implementation of a Cultural Resources Monitoring and Treatment Plan, the demarcation of exclusion zones for resources P-33-007425 and P-33-001768, the collection of the nine previously recorded cultural resources, and a cultural resources training. With the incorporation of **MM CUL-1** through **MM CUL-5**, impacts would be less than significant.

c) *Disturb any human remains, including those interred outside of dedicated cemeteries?*

Less than Significant Impact.

The Project site is located within an active cemetery or in a location where cemeteries or other burial grounds are known to have existed. As previously discussed, a records search with the SLF returned negative results for the Project site. While it is considered to be very unlikely for the Project site, the discovery of human remains is always a possibility during ground disturbances. Section 7050.5 of the State of California Health and Safety Code states that no further disturbance shall occur until the Riverside County Coroner has made a determination of origin and disposition pursuant to Section 5097.98 of the PRC. The Riverside County Coroner must be notified of the find immediately. If the human remains are determined to be prehistoric, the coroner will notify the NAHC, which will determine and notify a most likely descendant (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. Even though the Project site is not located within a dedicated or non-dedicated cemetery, there is a possibility for the inadvertent find of human remains, therefore, there would be a less than significant impact.

Mitigation Measures

- MM CUL-1** If archaeological resources are exposed during ground disturbing activities (i.e., clearing, grubbing, etc.) ~~construction~~, work in the immediate vicinity of the find must stop until a qualified archaeologist retained by CVWD can evaluate the significance of the find. Construction activities may continue in other areas. If the discovery proves significant under CEQA (14 CCR 15064.5[f]; PRC 21082), additional work such as testing, or data recovery may be warranted.
- MM CUL-2** To avoid impacts to any undiscovered cultural resource, all Project-related ground disturbing activities shall be monitored by a qualified Native American monitor from a local Native American tribe(s) affiliated with cultural resources in the Project area, or as identified in the project specific Tribal Monitoring Agreement. The Native American monitor(s) shall be authorized to halt construction in the area of the find until the find can be assessed and appropriately handled in accordance with the Cultural Resources Monitoring and Treatment Plan. Construction may continue in other parts of the Project Alignment. In the event that a cultural resource is discovered, a qualified archaeologist shall support evaluation of the resource.
- MM CUL-3** To provide for the appropriate treatment and disposition of any discovered cultural resources, prior to the initiation of any ground disturbing activities a Cultural Resources Monitoring and Treatment Plan (CRMTP) shall be prepared and enforced during project construction. The CRMTP shall include provisions for: qualifications of key staff, actions subject to monitoring, monitoring protocols, provisions for evaluating and treating cultural materials, and reporting requirements. The CRMTP shall be consistent with the Secretary of the Interior's Standards and Guidelines for Archaeological Documentation: California Office of Historic Preservation (OHP) Archaeological Resources Management, and include a monitoring plan, research design, and data recovery and treatment plan. ~~If the qualified archaeologist determines a recovered resource is significant and avoidance or preservation in place is infeasible, the recovered resource shall be cleaned, identified, catalogued, analyzed, and prepared for curation at an appropriate repository with permanent retrievable storage to allow for additional research in the future. Site records or~~

site record updates (as appropriate) shall be prepared and submitted to the South Coast Information Center as a permanent record of the discovery.

MM CUL-4 Prior to any construction activities, grading limits will be flagged to demarcate exclusion zones for the avoidance of ground disturbing activities to resource P-33-007425 and resource P-33-001768, to the extent feasible. Pending any conflicts regarding property ownership, the nine previously recorded artifacts within the project area shall be handled collected and treated in accordance with the Cultural Resources Monitoring and Treatment Plan.

For potential collection activities, no artifacts must leave federal land. Artifacts observed during monitoring may generally be left where they are or reburied within the Project footprint with a shovel. For significant discoveries, consultation with the SHPO and local Native American tribe(s) affiliated with cultural resources in the Project area would be required.

MM CUL-5 A Qualified Archaeologist, defined as one who meets the Secretary of the Interior's Professional Qualification Standards in archaeology, shall conduct a cultural resources Worker Environmental Awareness Program (WEAP) training for all on-site project personnel. The training shall be conducted prior to the commencement of construction activities. The training shall include information about the cultural resources identified in the project area and the monitoring protocols. A record of project personnel that received the training shall be provided to CVWD.

Cumulative Impacts

For purposes of cumulative Cultural Resource impacts analysis, cumulative impacts are considered in connection with the anticipated future development projects. Future cumulative development projects could encounter or impact cultural resources. The analysis is focused on the Project's potential for resulting in site-specific impact that could contribute to a cumulative loss. Impacts are site-specific and not generally subject to cumulative impacts unless multiple projects impact a common resource, or an affected resource extends off-site across the locations of multiple projects, such as a historic townsite or district. Projects located in an archaeologically sensitive area are required to conduct archaeological monitoring during construction, which would reduce cumulative impacts to a less-than-significant level. In addition, **MM CUL-1** would apply to the Project, ensuring that its contribution to cumulative impacts would not be considerable.

4.6 ENERGY

	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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

The Project proposes the installation of drainage channel infrastructure consisting of an earthen channel with concrete side slopes. This channel infrastructure would connect Sun City Shadow Hills to the CVSC just east of the intersection of Indio Boulevard and the CVSC. The Coachella Valley is relatively flat, surrounded by undeveloped northwest-southeast trending mountainous areas to the east (Mecca Hills and Joshua Tree National Park) and west (Santa Rosa and San Jacinto Mountains).

The proposed infrastructure improvements include paving the slopes of the existing drainage channel with concrete, grading the flowline of the drainage channel to ensure positive slopes, and security fencing along the Channel right-of-way. These improvements will be at grade and visible from the public viewshed. According to preliminary design, the Channel would consist of 1.5:1 concrete side slopes and 1:1 cutoff walls below grade. The Channel’s flowline would be graded to achieve a 0.1 percent slope or a 0.001 foot per foot change of elevation over a distance.

- a) ***Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?***
Less than Significant Impact.
- b) ***Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?***
Less than Significant Impact.

California Code Title 24, Part 6 (also referred to as the California Energy Code), was promulgated by the California Energy Commission in 1978 in response to a legislative mandate to create uniform building codes to reduce California’s energy consumption. To these ends, the California Energy Code provides energy efficiency standards for residential and nonresidential buildings. California’s building efficiency standards are updated on an approximately three-year cycle. The 2019 Standards for building construction, which went into effect on January 1, 2020, improved upon the former 2016 Standards for residential and nonresidential buildings. The 2019 Title 24 standards will result in less energy use, thereby reducing air pollutant emissions associated with energy consumption in the SCAB and across the State of California. For example, the 2019 Title 24 standards will require solar photovoltaic systems for new homes, establish requirements for newly constructed healthcare facilities, encourage demand responsive technologies for residential buildings, and update indoor and outdoor lighting requirements for nonresidential buildings. However, the Project does not propose the installation or construction of infrastructure that require electricity or other forms of energy sources. The newest edition of the California Building Standards is the 2022 edition with an effective date of January 1, 2023.

Construction of the Project would require minimal use of electricity, as electric-powered hand-tools would be the primary source of electricity demand for construction activities. The electricity used for construction activities would be temporary and nominal; therefore, Project construction would not result in wasteful, inefficient, or unnecessary consumption of electricity. Impacts would be less than significant in this regard.

Construction of the Project is not anticipated to necessitate the use of natural gas. Fuels used during construction would primarily consist of diesel and gasoline fuels used to operate construction equipment. During construction, transportation energy use depends on the type and number of trips, vehicle miles traveled, fuel efficiency of vehicles, and travel mode. Transportation energy use during construction would come from the transport and use of construction equipment, haul trucks, and construction employee vehicles that would use diesel fuel and/or gasoline. The use of energy resources by these vehicles would fluctuate according to the phase of construction and would be temporary. Most construction equipment during demolition and grading would be gas-powered or diesel-powered, and the later construction phases would require electricity-powered equipment. Impacts related to transportation energy use during construction would be temporary and would not require expanded energy supplies or the construction of new infrastructure. Impacts would be less than significant in this regard.

The Project would not connect to any public utility service systems and would have no impacts related to operations of the Project. Overall, a less than significant impact would occur due to construction-related energy demands.

Mitigation Measures

No mitigation measures are necessary.

Cumulative Impacts

Potential cumulative impacts to energy would result if the Project, in combination with past, present, and future projects, would result in the wasteful or inefficient use of energy. This could result from development does not incorporate energy efficiency features or would result in unnecessary use of energy during construction and/or operation. The Project would only utilize energy resources in the form of fuels during construction. Operationally, there would be no routine energy uses. As the energy use for the Project would be temporary and would cease after construction is complete, there would be no cumulatively significant impacts resulting from Project implementation.

4.7 GEOLOGY AND SOILS

	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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 checked="" type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input 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 waste water disposal systems where sewers are not available for the disposal of waste water?	<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"/>

A Geotechnical Investigation was completed by Geocon West, Inc. as part of the Project and is used as a basis for the determination of environmental significant under CEQA. Refer to **Appendix D**.

Discussion

The Coachella Valley is bounded by the Little San Bernardino Mountains to the north and northeast, foothills of the San Bernardino Mountains in the northwest, and the San Jacinto and Santa Rosa Mountains to the west and southwest respectively. The Project site is located in the Coachella Valley. A prominent feature of the geographic area is the Salton Trough, which is a northwest-trending depression that extends from the Gulf of California to the San Geronio Pass and contains several thousand feet of Miocene to Holocene sedimentary deposits. The Project site is located within this geologic Salton Trough and within the site of ancient Lake Cahuilla in the Lower Colorado River drainage basin. The valley surface is composed of alluvial, lakebed and aeolian deposits, which have been laid down over thousands of years. The Salton Trough, a large part of which is below mean sea level, has been expanding and filling over the ages with eroding sediments from the surrounding mountain ranges. The valley has also been periodically inundated by the Colorado River and a series of deep sediments has been deposited by the river.

Overall, the Coachella Valley area consists mostly of various depths of surficial deposits in two groups, alluvium and dune sands.²² Alluvial deposits in the Coachella Valley consist of alluvial plain, lake deposits, and stream channel deposits. The alluvial plain deposits range from coarse-grained sand and gravel to silts and some clays. Typically, the alluvial deposits are loose and unconsolidated. According to the United States Natural Resources Conservation Service (NRCS), soils located within the Project site are classified as fluvents (Fe), Coachella fine sand (CpA), Gilman fine sandy loam (GbA), Indio very fine sandy loam (Is), and Myoma fine sand (MaB).²³ Each of these soil types found within the Project site are classified as alluvium materials. As part of the geotechnical investigation (**Appendix D**) a field exploration was conducted, and soil borings were taken. The exploration encountered undocumented artificial fill at depths of 6 to 20 feet along the existing channel embankment. Additionally, quaternary-age alluvium was encountered within the channel bottom and below the undocumented artificial fill to the maximum depth explored of approximately 51 feet. No groundwater was encountered during soil boring tests. It was determined by the Geotechnical Investigation that groundwater depths can range between approximately 74 feet and 125 feet below the existing ground surface.

The majority of southern California, including the Coachella Valley, is considered a seismically active region and is subject to risk from earthquakes and other geologic effects that are triggered by earthquakes such as ground shaking, fault rupture, landslide, liquefaction, subsidence, and seiches. Two of California's most active faults, the San Andreas and San Jacinto faults, are located within the Coachella Valley. The San Andreas and San Jacinto have been designated by the California Geological Survey as Alquist-Priolo Earthquake Fault Zones.

- 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.***

Less than Significant Impact.

There are no State of California or County of Riverside Fault Hazard Zones mapped within or projecting toward the site. The San Andreas fault zone is located in the Indio Hills, approximately 2 miles northeast of the site. Based on these considerations, the risk of surface ground rupture occurring at the subject site is relatively low. The site is located in the seismically active southern California region and could be subjected to moderate to strong ground shaking in the event of an earthquake on one of the many active southern California faults. The intensity of the seismic hazards that may be experienced at the Project site would depend upon the magnitude of the earthquake, distance to epicenter, and the geology of the area between the epicenter and the Project site. Seismically induced ground rupture could occur with the physical displacement of surface deposits in response to an earthquake's seismic waves. As the Project site is not located within a fault zone, impacts would be less than significant, and no mitigation is necessary.

²² City of Indio. June 2019. *Final Environmental Report for the City of Indio General Plan Update*; Page 4.6-3. <https://www.indio.org/civicax/filebank/blobdload.aspx?BlobID=29168> (accessed May 2022).

²³ United States Natural Resources Conservation Service. May 2022. *Web Soil Survey*. <https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>. (accessed May 2022).

ii) Strong seismic ground shaking?**Less than Significant Impact.**

As previously discussed, the Project site is not located within a fault zone. However, due to its proximity to a major fault zone, the Project area is subject to seismic ground shaking. Ground shaking hazards are relatively increased within the Project area due to its proximity to fault zones.²⁴ Although impacts related to strong seismic ground shaking could be potentially significant in the Project area, the Project does not propose or include any land use components that would bring additional people to the area or structures that people would occupy. The Project consists of drainage channel improvements and does not include any habitable structures. Therefore, the Project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death due to seismic ground shaking and impacts would be less than significant, and no mitigation is necessary.

iii) Seismic-related ground failure, including liquefaction?**Less than Significant Impact.**

Liquefaction, most often caused by earthquakes, describes a phenomenon where a soil's strength and stiffness are substantially reduced. Liquefaction causes the soil's composition to liquefy, which destabilizes buildings that are supported by the ground. Indio could experience seismic shaking levels that have the potential for liquefaction in areas where groundwater is generally shallower than 30 feet. As previously stated, groundwater was not encountered within 51 feet of the surface during soil borings and that groundwater depths can range from 74 to 125 feet in depth. The Project site lies within areas that experience low to moderate levels of liquefaction susceptibility.²⁵ As such, impacts would be less than significant, and no mitigation is necessary.

iv) Landslides?**Less than Significant Impact.**

Landslides occur when masses of rock, earth, or other material move rapidly down a slope. Landslides and surficial slope failure are most likely to occur in areas with a slope greater than 25 percent (hillside areas) and along steep bluffs. Since Indio is relatively flat with undeveloped hillsides along the northern boundary, the City is at low risk for landslides. Regional topography is of low relief characterized by landforms attributable to Holocene Lake Cahuilla. Flat land coupled with poorly stratified alluvial soils generally rule out any potential slope stability issues. The potential impact of landslides is less than significant, and no mitigation is necessary.

b) Result in substantial soil erosion or the loss of topsoil?**Less than Significant Impact.**

The Project would result in minor erosion of soils on or offsite during Project construction due to construction activities. Construction activities would include but is not limited to demolition, grading, construction of channel improvements, and landscaping. The Project would be required to apply for a regional stormwater general construction permit which would ensure adequate best management practices (BMPs) are utilized as designed in the Project specific stormwater pollution prevention plan (SWPPP). Some of the BMPs

²⁴ City of Indio. June 2019. *Final Environmental Report for the City of Indio General Plan Update; Figure 4.6-3.* <https://www.indio.org/civicax/filebank/blobdload.aspx?BlobID=29168> (accessed May 2022).

²⁵ City of Indio. June 2019. *Final Environmental report for the City of Indio General Plan Update; Figure 4-6.4.* <https://www.indio.org/civicax/filebank/blobdload.aspx?BlobID=29168> (accessed May 2022).

included in the SWPPP may include the use of silt fences, filter socks, temporary rock check dams, erosion control blankets, covering of stockpiles, and post-construction revegetation and drainage requirements. Additionally, prior to construction, the Project would be required to have an approved Fugitive Dust Control Plan to offset or reduce windblown dust. With the implementation of BMPs and existing control measures, the potential for soil erosion or topsoil loss during Project construction would be less than significant, and no mitigation is necessary.

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?*

Less than Significant Impact.

As previously discussed, the potential impacts due to landslides and liquefaction are less than significant. Land subsidence is a gradual settling or sudden sinking of the Earth's surface. The principal causes of land subsidence include groundwater extraction, oil extraction, and peat loss. The Project site is in an area of historic subsidence. The demand for water has exceeded the deliveries of imported surface water, and groundwater levels have been declining as a result of increased pumping. A network of continuous GPS stations has been set up in the valley to monitor this subsidence.²⁶ While the City of Indio has historically been susceptible to subsidence, the Project does not proposed developments that would be substantially or adversely affected by subsidence. Similarly, the Project does not propose the development of elevated structures that would collapse due to soil or geologic instability. Furthermore, all development would be required to comply with applicable state laws and local regulations pertaining to geologic instability, including the California Building Code (CBC), Chapters 155 and 162 of the City's Municipal Code. As such, impacts would be less than significant, and no mitigation is necessary.

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?*

Less than Significant Impact.

Soil types with potential to result in shrinking and swelling are generally not located in the City of Indio, however, soils with clay are present in the eastern portion of the City.²⁷ Expansive soils cause structural damage, cracked driveways and sidewalks, heaving of roads and highway structures, and disruption of pipelines and other utilities. Expansive soils are generally high in clays or silts that shrink or swell with variation in soil moisture content and can adversely affect the structural integrity of underground facilities. Design of the proposed channel improvements would adhere to CVWD's standards, which provide regulations related to soils and foundations, to avoid adverse effects of potential expansive soils. Additionally, soil types found on-site are typically characterized as sands, fine sands, gravelly sand, or loamy sand which are not generally considered expansive.²⁸ As such, impacts related to expansive soils would be less than significant, and no mitigation is necessary.

²⁶ City of Indio. September 2019. *General Plan; Page 10-9*. <https://www.indio.org/civicax/filebank/blobdload.aspx?t=47082.25&BlobID=29234> (accessed May 2022).

²⁷ City of Indio. June 2019. *Final Environmental Report for the City of Indio General Plan Update; Page 4.6-20*. <https://www.indio.org/civicax/filebank/blobdload.aspx?BlobID=29168> (accessed May 2022).

²⁸ United States Natural Resources Conservation Service. May 2022. *Web Soil Survey*. <https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>. (accessed May 2022).

- e) ***Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?***

No Impact.

The Project does not propose the development of new septic tanks or alternative wastewater systems that would release directly to soils. There are no impacts related to soil suitability for septic systems, and no mitigation is necessary.

- f) ***Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?***

Less than Significant Impact.

Paleontological resources include the fossilized remains or traces of animals and plants from a previous geologic period. The Project site is located in the Coachella Valley, a large northwest to southeast trending basin that is the result of the well-known San Andreas Fault system in California. Sedimentary deposition has been slowly filling this basin since the Miocene Epoch (23.0 to 5.3 million years ago). Being an area of sedimentary deposition, the potential for paleontological resources exists.

According to the City of Indio General Plan, five sedimentary units in the region have the potential to contain significant paleontological resources:²⁹

- The Mecca Formation, dated from the late Miocene/early Pliocene, for which little information is available, has been given a High Potential sensitivity ranking.
- The Palm Springs Formation dates from the Pleistocene and contains vertebrate fossils such as horse and cotton rat. It is considered to have a High Potential sensitivity ranking.
- The Canebrake Conglomerate, which dates from the Pliocene to the Pleistocene, has produced mammalian, reptilian, and avian fossils. It is considered to have a High Potential sensitivity ranking.
- The Older Quaternary Lake Sediments, found above the high shoreline of Lake Cahuilla, date from the Late Pleistocene, and contain abundant fossil freshwater fauna. This unit is considered to have a High Potential sensitivity ranking.
- The Ocotillo Conglomerate, an alluvial fan deposit, dates from the mid to late Pleistocene. It has a sensitivity rating of Undetermined Potential.

Project excavation is expected to reach depths of up to approximately 30 feet below the ground surface. However, most of the Project would occur in areas already disturbed. The entire Project site shows evidence of grading and general disturbance with roadways and channel improvements. As a result, the potential for encountering fossil resources during Project excavation or ground disturbance is low and impacts would be less than significant, and no mitigation is necessary.

Mitigation Measures

No mitigation is necessary.

Cumulative Impacts

Southern California is a seismically active region with a range of geologic and soil conditions. These conditions can vary widely within a limited geographical area due to factors, including differences in

²⁹ City of Indio. September 2019. *General Plan; Page 8-12*. <https://www.indio.org/civicax/filebank/blobdload.aspx?t=47082.25&BlobID=29234> (accessed May 2022).

landforms and proximity to fault zones, among others. Therefore, while geotechnical impacts may be associated with the cumulative development, by the very nature of the impacts (i.e., landslides and expansive and compressible soils), impacts are typically site-specific and there is little, if any, cumulative relationship between the development of Project and development within a larger cumulative area, such as citywide development.

CEQA significance criteria do not require elimination of the potential for structural damage from seismic hazards. Instead, the criteria require an evaluation of whether the seismic conditions on a project site can be overcome through engineering design solutions that would reduce these impacts to less than significant by reducing the risk of exposing people or structures to loss, injury, or death. As the Project generally consists of improvements to an existing stormwater channel and roadway improvements, there would be no structures developed or human occupancy during operations. As such, there would be very little risk, if any, risk to human health or structures designed for occupancy. The Project would not contribute to cumulatively significant impacts related to geology and soils.

4.8 GREENHOUSE GAS EMISSIONS

	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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 checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input 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 Earth’s surface, and a smaller portion of this radiation is reflected back into 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.

The primary GHGs contributing to the greenhouse effect are carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O). Human-caused emissions of GHGs exceeding natural ambient concentrations are believed to be responsible for intensifying the greenhouse effect and leading to a trend of unnatural warming of the Earth’s climate, known as global climate change or global warming.

GHGs are global pollutants, unlike criteria air pollutants and toxic air contaminants (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 a GHG molecule is dependent on multiple variables and cannot be pinpointed, more CO₂ is emitted into the atmosphere than is sequestered by ocean uptake, vegetation, or other forms of carbon sequestration. 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.³⁰

Executive Order (EO) S-3-05 in 2005 set GHG emission reduction targets: reduce GHG emissions to 2000 levels by 2010; reduce GHG emissions to 1990 levels by 2020; and reduce GHG emissions to 80 percent below 1990 levels by 2050. Assembly Bill (AB) 32 directed CARB to set a GHG emissions limit based on 1990 levels, to be achieved by 2020. Senate Bill (SB) 32, passed in 2016, required that CARB, in its next update to the AB 32 Scoping Plan, “ensure that statewide GHG emissions are reduced to at least 40 percent below the statewide GHG emissions limit no later than December 31, 2030.” AB 1279 establishes the policy of the state to achieve carbon neutrality no later than 2045.

³⁰ Intergovernmental Panel on Climate Change, *Carbon and Other Biogeochemical Cycles*. In: *Climate Change 2013: The Physical Science Basis, Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change*, 2013. http://www.climatechange2013.org/images/report/WG1AR5_ALL_FINAL.pdf.

Adopted December 15, 2022, CARB's 2022 Scoping Plan for Achieving Carbon Neutrality (2022 Scoping Plan) sets a path to achieve targets for carbon neutrality and reduce anthropogenic GHG emissions by 85 percent below 1990 levels by 2045 in accordance with AB 1279. To achieve the targets of AB 1279, the 2022 Scoping Plan relies on existing and emerging fossil fuel alternatives and clean technologies, as well as carbon capture and storage. Specifically, the 2022 Scoping Plan focuses on zero-emission transportation; phasing out use of fossil gas use for heating homes and buildings; reducing chemical and refrigerants with high GWP; providing communities with sustainable options for walking, biking, and public transit; displacement of fossil-fuel fired electrical generation through use of renewable energy alternatives (e.g., solar arrays and wind turbines); and scaling up new options such as green hydrogen. The 2022 Scoping Plan sets one of the most aggressive approaches to reach carbon neutrality in the world. Unlike the 2017 Scoping Plan, CARB no longer includes a numeric per capita threshold and instead advocates for compliance with a local GHG reduction strategy (i.e., Climate Action Plan) consistent with CEQA Guidelines section 15183.5.

The key elements of the 2022 CARB Scoping Plan focus on transportation. Specifically, the 2022 Scoping Plan aims to rapidly move towards zero-emission transportation (i.e., electrifying cars, buses, trains, and trucks), which constitutes California's single largest source of GHGs. The regulations that impact the transportation sector are adopted and enforced by CARB on vehicle manufacturers and are outside the jurisdiction and control of local governments. The 2022 Scoping Plan accelerates development of new regulations as well as amendments to strengthen regulations and programs already in place.

The City of Indio adopted a Climate Action Plan (CAP) in September 2019 to reduce GHG emissions. The CAP establishes citywide GHG reduction targets for 2020, 2030, and 2040, which represent the City's contribution to the State's effort to reduce GHG emissions. The City of Indio CAP includes a screening level threshold of 900 Metric tons of carbon dioxide equivalent (MTCO_{2e}) as a conservative threshold for determining when further GHG analysis is required. This threshold is intended as a bright-line test that would exempt projects that are too small to have significant impacts from further analysis.

Methodology

The Project's construction and operational emissions were calculated using the California Emissions Estimator Model version 2022.1 (CalEEMod). Details of the modeling assumptions and emission factors are provided in **Appendix A: Air Quality/Greenhouse Gas Modeling Data**. For construction, CalEEMod calculates emissions from off-road equipment usage and on-road vehicle travel associated with haul, delivery, and construction worker trips. GHG emissions during construction were forecasted based on the proposed construction schedule and applying the mobile-source and fugitive dust emissions factors derived from CalEEMod. The Project's construction-related GHG emissions would be generated from off-road construction equipment, on-road hauling and vendor (material delivery) trucks, and worker vehicles. The Project's construction is anticipated to occur over a duration of approximately 10 months, beginning in November 2025.

- a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?**

Less than Significant Impact.

Construction Greenhouse Gas Emissions

The Project would result in direct emissions of CO₂, N₂O, and CH₄ from construction equipment and the transport of materials and construction workers to and from the project site. The GHG emissions only occur during temporary construction activities and would cease once construction is complete. The total GHG

emissions (in MTCO_{2e}) generated during construction are shown in **Table 4.8-1: Construction-Related Greenhouse Gas Emissions**. Annual construction GHG emissions are typically summed and amortized over a 30-year period and then added to the operational emissions.³¹

Table 4.8-1: Construction-Related Greenhouse Gas Emissions

Category	MTCO _{2e}
2024 Construction	2,808
30-Year Amortized Construction	94
Source: CalEEMod version 2020.4.0. Refer to Appendix A for model outputs.	

Operational Greenhouse Gas Emissions

Operational emissions would result from maintenance activities occurring on-site over the life of the Project. Maintenance activities would include mulching the vegetation, repairing erosions along the front and backsides of the slope and hauling debris to the transfer station. GHG emissions would result from direct emissions from equipment such as a vegetation mulcher, grader, a front-end loader, dump truck, water truck, and service trucks. The Project’s operational GHG emissions are provided in **Table 4.8-2: Project-Related Greenhouse Gas Emissions**.

Table 4.8-2: Project-Related Greenhouse Gas Emissions

Emissions Source	MTCO _{2e} per Year
Construction Amortized Over 30 Years	94
Maintenance	96
Total	190
<i>City of Indio CAP Screening Threshold</i>	<i>900</i>
Exceeds Threshold?	No
Source: CalEEMod version 2020.4.0. Refer to Appendix A for model outputs.	

As shown in **Table 4.8-2**, the project is expected to generate approximately 190 MTCO_{2e} per year from annualized construction and maintenance activities. As such, the project GHG emissions would not exceed the CAP screening threshold of 900 MTCO_{2e} per year. Therefore, the Project’s GHG impact is determined to be less than significant.

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Less than Significant Impact.

The Indio City CAP has a goal to reduce community GHG emissions to 40 percent below 1990 levels by 2030 and a projection of emissions for 2040, the time horizon of the General Plan. The CAP identifies a series of local measures to help guide the City in the areas of building energy, transportation, solid waste management, wastewater treatment, and water conveyance to further reduce community wide GHG emissions. The Project does not exceed the CAP’s screening threshold and not result in a significant GHG impact. Therefore, the Project would not conflict with the CAP’s measures.

³¹ The standard 30-year amortization period is based on the South Coast Air Quality Management District (South Coast Air Quality Management District, *Minutes for the GHG CEQA Significance Threshold Stakeholder Working Group #13*, August 26, 2009).

CARB's Scoping Plan provides a range of GHG reduction actions that include direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, market-based mechanisms such as the cap-and-trade program, and an AB 32 implementation fee to fund the program. The 2022 Scoping Plan Update identifies additional GHG reduction measures necessary to achieve the SB 32 2030 target. Although a number of these measures are currently established as policies and measures, some measures have not yet been formally proposed or adopted. It is expected that these actions to reduce GHG emissions will be adopted as required to achieve statewide GHG emissions targets.

Because the Project is a floodwater conveyance project, the Scoping Plan's recommended measures are not directly applicable. In other words, there are no specific actions or measures to incorporate into the Project necessary to comply with the Scoping Plan. However, the Project would be indirectly reduced through the implementation of various Scoping Plan measures, such as the low carbon fuel standard for construction/maintenance equipment and worker vehicles. Therefore, the Project would not conflict with the Scoping Plan's recommended measures and, as such, would not impede implementation of the Scoping Plan.

The estimated GHG emissions resulting from construction and operation of the proposed development will not exceed the 900 MTCO_{2e} per year screening threshold, therefore the project's GHG emissions would not conflict with plans and policies adopted for the purpose of reducing GHG emissions, including the City of Indio CAP and the 2022 Scoping Plan. Impacts would be less than significant.

Mitigation Measures

No mitigation is necessary.

Cumulative Impacts

Climate change is a global problem. 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 much longer atmospheric lifetimes of one year to several thousand years that allow them to be dispersed around the globe.

It is generally the case that an individual project of this size and nature is of insufficient magnitude by itself to influence climate change or result in a substantial contribution to the global GHG inventory. The State CEQA Guidelines generally address GHG emissions as a cumulative impact because of the global nature of climate change. As such, GHG impacts are recognized as exclusively cumulative impacts; there are no non-cumulative GHG emission impacts from a climate change perspective. The additive effect of Project-related GHGs would not result in a reasonably foreseeable cumulatively considerable contribution to global climate change. In addition, the Project as well as other cumulative related projects would also be subject to all applicable regulatory requirements, which would further reduce GHG emissions. As shown above, the Project would not exceed GHG emissions thresholds as set by the City of Indio, as such, the Project would not contribute to a cumulatively significant impact related to GHG emissions.

4.9 HAZARDS AND HAZARDOUS MATERIALS

	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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 type="checkbox"/>	<input checked="" 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input 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 Project site does not currently store or utilize hazardous materials as the existing improvements to the Project site include earthen drainage channel infrastructure. Through natural events, system failures, or accidents off-site, hazardous materials can become a risk to the environment and human health. Numerous local, state and federal laws exist to regulate the storage, use, handling and transportation of hazardous materials. To increase public safety and awareness of hazardous materials exposure risk, businesses and entities that handle, store, transport, or use hazardous materials are required to file reports with appropriate authorities and maintain emergency response plans in the event of a hazardous materials release.

A regulatory records search for the Project site using the California State Water Resources Control Board (SWRCB) *GeoTracker* database and the California Department of Toxic Substances Control (DTSC) *EnviroStor* database revealed that the Project site does not contain any sites or listings of potential or confirmed hazardous waste and hazardous substances sites. Apple Market #5 is nearest site to the Project site located at 80631 Indio Boulevard, Indio, CA 92201, approximately 0.43 miles to the southwest.³² This site is classified as a Leaking Underground Storage Tank (LUST) Cleanup Site with a completed status as of 2008.

³² California State Water Resources Control Board. 2022. *GeoTracker*. <https://geotracker.waterboards.ca.gov/map/?CMD=runreport&myaddress=city-of-indio> (accessed May 2022).

a) **Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?**

Less than Significant Impact.

Construction of the Project would temporarily create the need for the transport, use, or disposal of potentially hazardous materials commonly used during construction activities. Hazardous materials typically associated with construction activities include but are not limited to, gasoline, diesel fuel, hydraulic fluids, paint, solvents, and other materials. These materials would be handled in accordance with their respective material safety data sheets and spill kits would be located on-site during construction as required by the stormwater general construction permit. Upon completion of construction, the Project would not result in operational activities which would require the routine transport, use, or disposal of hazardous materials. As such, due to the anticipated transport, use, or disposal of hazardous material occurring temporarily, impacts are less than significant, and no mitigation is necessary.

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?**

Less than Significant Impact with Mitigation Incorporated.

Construction of the Project would potentially create a hazard to the public or the environment due to the accidental release of hazardous materials used during construction, which include diesel fuel and minor amounts of paints, fuels, solvents and glues. While the accidental release of hazardous materials is unlikely, **MM HAZ-1** would be implemented to reduce any potentially significant impacts. **MM HAZ-1** requires development of a Hazardous Materials Management Spill Control Plan that includes project-specific contingencies. Upon completion of construction, the Project would not result in a potential to release hazardous materials into the environment, as no hazardous materials are anticipated to be utilized during operations of the Project. With the implementation of **MM HAZ-1**, impacts are less than significant.

c) **Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?**

No Impact.

The Project site is not located within one-quarter mile of an existing or proposed school. The nearest school to the Project site is Carrillo Ranch Elementary School, located at 43775 Madison Street, Indio, CA 92201, approximately 0.39 miles southwest of the Project site. As such, no impact would occur, and no mitigation is necessary.

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?**

No Impact.

The Project site is not included on a list of hazardous materials sites compiled pursuant to GC §65962.5, otherwise known as the Cortese List.³³ As such, no impact would occur, and no mitigation is necessary.

³³ California Environmental Protection Agency. 2022. *Hazardous Waste and Substances Site List*.

https://www.envirostor.dtsc.ca.gov/public/search.asp?cmd=search&reporttype=CORTESE&site_type=CSITES,OPEN,FUDS,CLOSE&status=ACT_BKLG,COM&reporttitle=HAZARDOUS+WASTE+AND+SUBSTANCES+SITE+LIST (accessed May 2022).

- 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?***

Less than Significant Impact.

The Project site is located approximately 0.8 mile east of Crown Aero (Bermuda Dunes Airport). Crown Aero is included within the Riverside County Airport Land Use Commission's (ALUC) airport land use compatibility plan (ALUCP). The Project site lies within Compatibility Zones B1, C, and D for Crown Aero.³⁴ However, the ALUCP Compatibility Zones only provide restrictions for residential and industrial/commercial land uses. The Project does not propose the development of residential or industrial/commercial uses. The Project site lies underneath the Runway 10 departure path.³⁵ During construction, there would be a potential risk to contractors and laborers within the Project site should a departing aircraft experience a catastrophic structural or engine failure. However, these risks would be temporary in nature and would stop once construction is completed as the Project will not be occupied during operations. Per Crown Aero, aircraft should be between 800 and 1500 feet above mean sea level (amsl). At that altitude, construction equipment would likely create a greater relative noise level than overpassing aircraft due to proximity to any contractors or laborers within the Project site. No residential, commercial, or industrial uses are proposed within the Project site and there would be no operational impacts. As impacts would be temporary and only exist during construction, impacts would be less than significant, and no mitigation is necessary.

- f) ***Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?***

Less than Significant Impact.

There are currently no established emergency evacuation routes within the City of Indio. Additionally, the Project does not propose land use changes that would result in changes to the City's circulation patterns or emergency access routes. During construction, access along Madison Street and Ave 42 would be temporary restricted or prohibited as the vertical alignments are currently proposed to be changed. This would require total reconstruction of the impacted sections of the roadways. The Applicant would coordinate with local emergency response facilities to ensure that closures are known and that alternative emergency routes can be planned during closures. As there are no adopted emergency response plans or evacuation plans and impacts would be temporary, impacts are anticipated to be less than significant, and no mitigation is necessary.

- g) ***Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?***

No Impact.

The Project site is located within an area designated as "not a very high fire hazard severity zone" (VHFHSZ) within a local responsibility zone for the City of Indio according to the California Department of Forestry and Fire Protection's (CalFire) Fire and Resource Assessment Program (FRAP). As such, no impact is anticipated to occur in this regard, and no mitigation is necessary.

³⁴ Riverside County Airport Land Use Commission. 2004. *Individual Airport Policies and Compatibility Maps: Bermuda Dunes Airport*. <https://www.rcaluc.org/Portals/13/PDFGeneral/plan/newplan/07-%20Vol.%201%20Bermuda%20Dunes.pdf> (accessed May 2022).

³⁵ Crown Aero. ND. *Bermuda Dune Airport VFR Traffic Pattern*. <https://crownaero.com/noise-abatement/> (accessed May 2022).

Mitigation Measures

- MM HAZ-1 Hazardous Materials Management and Spill Control Plan.** Prior to construction the construction contractor is required to submit to CVWD Engineering Services Department a Hazardous Materials Management Spill Control Plan that includes a project-specific contingency plan for hazardous materials and waste operations, including precautions taken in the proximity of a school zone. The plan shall be applicable to construction activities and shall establish policies and procedures according to applicable codes and regulations, including but not limited to the California Building and Fire Codes, and federal and California OSHA regulations. Elements of the Plan shall include, but not be limited to the following:
- A discussion of hazardous materials management, including delineation of hazardous material storage areas, access and egress routes, waterways, emergency assembly areas, and temporary hazardous waste storage areas.
 - Notification and documentation of procedures.
 - Spill control and countermeasures, including employee spill prevention/response training and a health and safety plan.
 - Equipment maintenance; and
 - Child safety and school operations.

Cumulative Impacts

Cumulative impacts related to hazards and hazardous materials would result from projects that combine to increase exposure to hazards and hazardous materials. The potential for cumulative impacts to occur is limited since the impacts from hazards and hazardous waste impacts are typically unique to each site and do not usually contribute to cumulative impacts. Cumulative development projects would be required to assess potential hazardous materials impacts on the development site prior to grading. Furthermore, the Project and other cumulative projects would be required to comply with all federal, state, and local statutes and regulations governing hazards and hazardous wastes. This would generally ensure that cumulative impacts related to hazards and hazardous materials would be less than significant through compliance of applicable requirements, policies, and regulations. However, for the purposes of this Project, **MM HAZ-1** would be implemented to provide further protections against the release of hazardous materials from the Project site during construction. Operationally, there would be no risk to hazardous material or hazards from causing cumulative impacts as the Project would consist of a stormwater channel that is designed to improve the overall flood control measures of the region. As such, with the implementation of mitigation during construction, the Project would not significantly contribute to cumulatively significant impacts related to hazards and hazardous materials.

4.10 HYDROLOGY AND WATER QUALITY

	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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 type="checkbox"/>	<input checked="" 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 checked="" type="checkbox"/>	<input 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 polluted runoff?	<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 checked="" type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

The Project proposes improvements to the existing Channel and would improve CVWD’s flood control capabilities in the region. As a result, the Project would be a net improvement to the existing regional and local hydrological conditions and would reduce the risk of flooding for upstream land uses. A Preliminary Design Report was prepared for the Project. Additionally, a basis of design report was prepared for the Project, which detailed design considerations and project characteristics that would be utilized and forms a large basis for the understanding of the hydrological conditions in the region and at the Project site.

a) *Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?*

Less than Significant Impact.

The Project site is located within the jurisdiction of the Colorado River Regional Water Quality Control Board (RWQCB). In California, the Porter-Cologne Water Quality Control Act (§13000 of the California Water Code), and the Federal Water Pollution Control Act Amendment of 1972 or the Clean Water Act requires comprehensive water quality control plans be developed for all waters within the State of California.

Demolition and construction of the Project site would involve clearing/site preparation, soil stockpiling, grading, construction of the Channel and relevant roadway improvements, and landscaping activities, which would result in the generation of potential water quality pollutants such as silt, debris, chemicals, and other solvents with the potential to adversely affect water quality. As such, short-term water quality impacts have the potential to occur during construction of the Project in the absence of any protective or avoidance measures.

The Project would disturb more than one acre of land and would be required to obtain coverage under the NPDES stormwater program. To minimize water quality impacts during construction, construction activities would be required to comply with a SWPPP consistent with the General Permit for Storm Water Discharge Associated with Construction Activity (Construction Activity General Permit). To obtain coverage, the CVWD Engineering Department or Project Proponent is required to submit a Notice of Intent prior to construction activities and develop and implement an SWPPP and monitoring plan. The Notice of Intent and the SWPPP would be uploaded to the California Water Boards Stormwater Multiple Application and Report Tracking System. The SWPPP identifies erosion-control and sediment-control BMPs that would meet or exceed measures required by the Construction General Permit to control potential construction-related pollutants. Erosion-control BMPs are designed to prevent erosion, whereas sediment controls are designed to trap sediment once it has been mobilized. Typical BMPs include but are not limited to construction scheduling, proper construction equipment staging, hydroseeding, straw mulch, sandbags, and silt fences. These requirements would ensure that potential Project impacts related to soil erosion, siltation, and sedimentation remain less than significant and avoid violation to any water quality standards or waste discharge requirements, and no mitigation would be required.

b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

No Impact.

During construction, the Project would be required to water the Project site to prevent fugitive dust emissions. However, the water acquired would be hauled to the site, the Project would not require the construction of a new groundwater well such that demand would increase permanently. Furthermore, water demand during construction would be temporary and would cease once construction is complete.

The Project does not propose any uses that would require any water. Additionally, in its existing conditions, the Project site channelizes water toward the CVSC and allows water to infiltrate into the ground along the length of the Project. After construction, the bottom of the channel would remain earthen and continue to allow water to infiltrate along the length of the channel. As such, no impact would occur regarding the sustainable management of the groundwater basin.

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?

Less than Significant Impact.

The Project site is located in and would regrade and reinforce the existing Channel. The Project would construct concrete side slopes to the Channel which would eliminate the possibility of erosion from the slopes of the Channel. The overall drainage pattern would remain, the Project does not propose any

adjustments to the horizontal alignment of the Channel. During construction, it is possible that, during grading, loose soils could be present on site. As such, and as previously discussed, the Project would be required to comply with the provisions and requirements of the Construction General Permit under the NPDES and provide BMPs which would reduce erosion and siltation on the project site during construction. As such, a less than significant impact would occur and no mitigation is required.

ii) *Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?*

No Impact.

iii) *Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?*

No Impact.

iv) *Impede or redirect flood flows?*

No Impact.

The Project would construct concrete side slopes within the Channel and provide some roadway improvements. Additionally, the impervious surface area to be constructed by the Project would not increase the runoff considering the impervious surface area would be constructed within the Channel area. The improvements would increase the flood flow volumes that could be captured by the Channel and be an overall net positive for flood control within the region. While the overall flood flow volumes would increase as a result of the vertical realignment of the Channel, the flood flow rates would be maintained at the outflow of storm waters into the CVSC. As such, no impact would occur, and no mitigation is required.

d) *In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?*

Less than Significant Impact.

Due to the nature of the Project as a stormwater channel intended to collect regional stormwater runoff, it would be designed to be inundated during rain events and would overall improve flood control for the region. During construction, it is possible that project inundation could result in the release of pollutants, primarily cementitious materials. However, adherence to the requirements of the construction general permit (CGP), required due to the Project disturbing more than one acre of soil, would prevent the release of these pollutants out of the Project site. The CGP would require the preparation of a stormwater pollution prevention plan (SWPPP) that details best management practices to employ throughout the construction site to prevent the release of pollutants from the Project site. Typical BMPs include but are not limited to construction scheduling, proper construction equipment staging, hydroseeding, straw mulch, sandbags, and silt fences. With adherence to the SWPPP and the requirements of the CGP, there would be a less than significant impact.

The Project site is not at risk of inundation due to tsunami due to the vast distance from the Project site to the Pacific Ocean. Further, there are several major topographical features between the Project site and the Pacific Ocean, such as the Santa Ana Mountains and the San Jacinto Mountains. As such, there would be no impact.

The Project site is not located within a seiche zone. Seiche occurs during ground shaking events, such as earthquakes, and require a body water to be present. The Project site is not located adjacent to any lakes or reservoirs that may be affected by earthquakes. As such, no impact would occur.

e) *Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?*

No Impact.

The Project consists of improvements to an existing stormwater channel. The existing Channel is an earthen bottom channel and would remain an earthen bottom channel after Project implementation. There would be no operational activities other than general maintenance. The Project is designed to be a regional stormwater conveyance and would not consist of operations which would cause pollutant generations that would cause violations to water quality. Further, as the Project would continue to be an earthen bottom channel, it would allow for groundwater recharge to occur while water flows through the Channel. As there would be very little change to the Project's ability to infiltrate groundwater, there would be no impact in this regard.

Mitigation Measures

No mitigation measures are necessary.

Cumulative Impacts

Cumulative impacts to hydrology and water quality are impacts that would result from incremental changes that degrade water quality or contribute to drainage and flooding problems within City of Indio and surrounding areas. However, the Project is designed with the specific intent to improve regional hydrology and stormwater management. Regarding water quality, the Project would implement pollution prevention measures during construction pursuant to the NPDES and would prepare a SWPPP which would prevent the transfer of pollutants from the Project site to downstream resources. As such, the Project would not contribute to cumulatively significant impacts related to hydrology and water quality, in fact, the Project would improve the regional hydrology and provide a cumulative benefit.

4.11 LAND USE AND PLANNING

	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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"/>

a) *Would the Project physically divide an established community?*

No Impact.

b) *Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?*

No Impact.

The Project is located within the City of Indio. The Project site is already developed with an existing earthen drainage and flood control channel. The Project site is generally surrounded by vacant lands or lands utilized for agricultural uses. The Sun City community is located north of the Project site, and no part of the Project is within the Sun City community. Roadways that currently exist within the Project site would remain and connectivity across the Project site would be maintained during operations. Furthermore, the Project site is designated as open space within the Indio General Plan and does not have a residential, commercial, or industrial component, the Project would be consistent with the General Plan land use plan. As such, the Project would have no impact regarding dividing an established community or conflicting with any plans, policies, or regulations.

Mitigation Measures

No mitigation is necessary.

Cumulative Impacts

For purposes of land use and planning impact analysis, cumulative impacts are considered for cumulative development in the event that Project development would exacerbate or otherwise significantly influence other nearby projects. The Project would consist of infrastructure improvements to an existing stormwater channel. The Channel has been well established for many years and is a known feature in the City of Indio. The Project would not cause nor contribute to cumulatively significant impacts related to land use and planning. Further, the Project would create a net benefit to the surrounding community.

4.12 MINERAL RESOURCES

	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

Indio’s important mineral resources include sand, gravel, and termed aggregate. These minerals are an important component of asphalt, concrete, road base, stucco, and plaster. The State Mining and Geology Board has defined Mineral Resource Zones (MRZ) for Indio, which describes mineral resources deposit areas. The Indio Quarry/Indio Hills Fan, located within Indio’s Sphere of Influence, is an existing permitted sand and gravel operation. The subject resource area consists of a moderate-sized deposit that is located within 750 acres of an alluvial fan adjacent to and immediately south of Indio Hills.

The State Mining and Geology Board MRZ definitions are as follows:

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

According to the Indio General Plan, the Project site is within a location designated as MRZ-1, indicating that there is little likelihood for significant mineral resources.³⁶

- a) ***Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?***
Less than Significant Impact.

As previously discussed, the Project site is located within an area designated as MRZ-1, indicating that there is little likelihood for significant mineral resources. Additionally, the Project site is currently disturbed with an existing earthen drainage and flood control channel and is not utilized for mining or extraction. As such, the Project would have a less than significant impact, and no mitigation is necessary.

³⁶ City of Indio. September 2019. *General Plan; Figure 8-2*. <https://www.indio.org/civicax/filebank/blobdload.aspx?t=47082.25&BlobID=29234> (accessed May 2022).

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?*

Less than Significant Impact.

The City of Indio General Plan does not identify the Project site as an area of locally important mineral resource recovery site. As previously stated, the MRZ for the Project site indicates that there is little likelihood for significant mineral resources to exist. As such, impacts would be less than significant, and no mitigation is necessary.

Mitigation Measures

No mitigation is necessary.

Cumulative Impacts

The Project does not contain any mineral resources and would not have any impact due to the removal or loss of availability of these resources, the Project would not contribute to any cumulative impact on mineral resources. As such, there would be no cumulative impacts as a result of Project implementation.

4.13 NOISE

	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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 checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

- 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?**

Less than Significant Impact.

Project construction would result in temporary increases in ambient noise levels primarily due to road paving from vibratory rollers. Project operation would not produce significant ambient noise levels. Although construction would result in noise increases, construction activities are temporary and Project construction activity is anticipated to occur continuously between the hours of 7:00 am and 6:00 pm, Monday through Friday only (not on weekends) and excluding federal holidays, which is compliant with the County of Riverside Ordinance Regulating Noise. Once operational, the only noises the Project would produce are associated with landscaping and or small maintenance practices associated with concrete improvements. Therefore, impacts are anticipated to be less than significant.

- b) Generation of excessive groundborne vibration or groundborne noise levels?**

Less than Significant Impact.

Human annoyance would be the primary construction vibration impact. Increases in ground borne vibration levels attributable to the proposed Project would be primarily associated with short-term construction-related activities. Project construction would not be located adjacent and within very near proximity to existing buildings that would experience building damage due to construction vibration impacts. Ordinary buildings that are not particularly fragile would not experience cosmetic damage at distances beyond 30 feet. No buildings exist within a 30-foot radius of the Project site. The nearest buildings to the site are located within the Sun City Community which are located over 140 feet away from construction activities. Therefore, construction of the Project is not anticipated to result in building damage.

Additionally, these temporarily increased levels of vibration could impact sensitive land uses near to the Project site, such as the residential communities to the northwest as well as the residential communities to the south.

Human annoyance is evaluated in vibration decibels (VdB) (the vibration velocity level in decibel scale) and occurs when construction vibration rises significantly above the threshold of human perception for extended periods of time. Table 6-3 of the FTA Transit Noise and Vibration Impact Assessment manual identifies 80 VdB as the threshold of annoyance for residential uses.

Refer to b for a list of typical construction equipment and the vibration generated. Pile driving typically generates the most substantial groundborne vibration, however pile driving would not occur on site where construction is anticipated. The greatest amount of vibration generated on-site would occur from vibratory rollers utilized for compaction of aggregate and asphalt materials.

Table 4.13-1: Vibration Source Levels for Construction Equipment

Equipment		PPV ¹ at 25 ft, in/sec	Approximate L _v ²³ at 25 ft
Clam Shovel Drop (slurry wall)		0.202	94
Pile Driver (impact)	Upper range	1.518	112
	Typical	0.644	104
Pile Driver (impact)	Upper range	0.734	105
	Typical	0.170	93
Hydromill (slurry wall)	In soil	0.008	66
	In rock	0.017	75
Vibratory Roller		0.21	94
Hoe Ram		0.089	87
Large Bulldozer		0.089	87
Caisson Drilling		0.089	87
Loaded Trucks		0.076	86
Jackhammer		0.035	79
Small Bulldozer		0.003	58
Source: FTA Transit Noise and Vibration Impact Assessment Manual; Table 12-2			
1 – Peak Particle Velocity: The peak signal value of an oscillating vibration velocity waveform.			
2 – L _v : Vibration velocity level			
3 – RMS velocity in decibels, VdB re 1 micro-in/sec			

For the purposes of noise and vibrational analysis, measurements to potential sensitive receptors are measured from the center of the Project site. This is due to construction activities not being constrained to a single location on the Project site but rather occurs across the entirety of the Project site. Measuring distances from the center of the Project site allows for an averaged value and even distribution of sources for noise and vibration impacts. The nearest residential land uses are located over 1,000 feet away from the center of the Project site. As previously mentioned, the nearest residential land uses are located over 140 feet away from the project boundary.

Utilizing the formula for vibrational attenuation, the vibrations felt at the sensitive receptors can be calculated.³⁷ Construction activities associated with vibratory rollers felt at sensitive residential receptors

³⁷ $L_{v,distance} = L_{v,25\ feet} - 30 \log_{10} \left(\frac{D}{25\ feet} \right)$, where D = distance to vibrational source in feet

Source: FTA. 2018. *Transit Noise and Vibration Impact Assessment Manual*; Equation 7-3, Page 185.

https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf (accessed November 2022).

1,000 feet away would be approximately 45.9.³⁸ Construction activities associated with vibratory rollers felt at sensitive residential receptors 140 feet away from the Project boundary would be approximately 71.6.³⁹ Construction activities would be temporary, and 140 feet is the closest these activities would be to sensitive receptors. According to the FTA Transit Noise and Vibration Impact Assessment Manual, Section 5.5, the incidence of complaints falls rapidly with vibrational velocity levels decreasing below 72 VdB. The FTA 80 VdB threshold is regarding annoyance (nuisance) and is not regarding adverse health impacts or hazards from potential structural damage. Therefore, the calculated values of construction generated vibrational velocities felt at sensitive receptors would be below the threshold of 80 VdB where annoyance is most common.

Structural damage caused from ground-borne vibration would be cosmetic only, such as paint flaking or minimal extension or cracks in building surfaces. For structural damage, the California Department of Transportation recommends a vibration limit of 0.5 in/sec PPV for buildings structurally sound and designed to modern engineering standards, 0.3 in/sec PPV for buildings that are found to be structurally sound but where structural damage is a major concern, and a conservative limit of 0.25 in/sec PPV for historic and some old buildings. Vibration levels would vary depending on soil conditions, construction methods, and equipment used. Pile driving would not occur as part of Project buildout; therefore, vibratory rollers would cause the greatest impact to ground-borne vibration and reach 0.21 in/sec PVV. Therefore, the PVV would be below the aforementioned thresholds for buildings structurally sound and designed to modern engineering standards, buildings structurally sound but where structural damage is a major concern, and historic and/or older buildings.

Table 4.13-2: Reaction of People and Damage to Buildings from Continuous or Frequent Intermittent Vibration Levels

Velocity Level, PPV (in/sec)	Human Reaction	Effect on Buildings
0.006-0.019	Threshold of perception; possibility of intrusion	Vibrations unlikely to cause damage of any type
0.10	Amplitude at which continuous vibrations begin to annoy people	Virtually no risk of "architectural" damage to normal buildings
0.20	Vibrations annoying to people in buildings (this agrees with the amplitudes established for people standing on bridges and subjected to relative short periods of vibrations)	Threshold at which there is a risk of "architectural" damage to normal dwelling - houses with plastered walls and ceilings. Special types of finish such as lining of walls, flexible ceiling treatment, etc., would minimize "architectural" damage
0.4-0.6	Vibrations considered unpleasant by people subjected to continuous vibrations and unacceptable to some people walking on bridges	Vibrations at a greater amplitude than normally expected from traffic, but would cause "architectural" damage and possibly minor structural damage.
0.5	Severe – vibrations considered unpleasant	Threshold at which there is a risk of damage to new residential and modern commercial/industrial structures.
Source: Transportation and Construction Vibration Guidance Manual, California Department of Transportation. Retrieved from: Microsoft Word – 0_CVM April 2020 03-19-30 (ca.gov)		

³⁸ $L_{v, 1,000 \text{ feet}} = 94 \text{ VdB} - 30 \log_{10} \left(\frac{1,000 \text{ feet}}{25 \text{ feet}} \right) = 45.9 \text{ VdB}$

³⁹ $L_{v, 300 \text{ feet}} = 94 \text{ VdB} - 30 \log_{10} \left(\frac{140 \text{ feet}}{25 \text{ feet}} \right) = 71.6 \text{ VdB}$

Once operational, the Project would not be a significant source of ground-borne vibration. Typical sources of ground-borne vibration are occasional traffic on rough roads. However, when roadways are smooth, vibration from traffic (even heavy trucks) is rarely perceptible. The Project would repave impacted roads resulting in ground-borne vibration caused from traffic minimal. Furthermore, rubber tires and suspension systems of on-road vehicles make it unusual for on-road vehicles to cause ground-borne noise or vibration problems. Therefore, vibration impacts would be less than significant.

- 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?**

Less than Significant Impact.

The nearest airport to the Project site is Bermuda Dunes Airport (KUDD). The Project site is approximately 0.8 mile west of this airport. The Project site is located within Compatibility Zones B1, C, and D of the Bermuda Dunes Airport.⁴⁰ However, the ALUCP Compatibility Zones only provide restrictions for residential and industrial/commercial land uses. The Project does not propose the development of residential or industrial/commercial uses. Also, the southerly portion of the Project site is located within the 55 CNEL for the Bermuda Dunes Airport. According to Table 11-1: Noise Compatibility Guidelines of the City's General Plan Noise Element, 55 CNEL is deemed acceptable for all land use categories.⁴¹ Noise associated with Project construction activities would be temporary and operational maintenance activities minimal; therefore, the Project would result in a less than significant impact with regard to exposing people residing or working in the Project area to excessive noise levels.

Mitigation Measures

No mitigation is necessary.

Cumulative Impacts

Cumulative noise impacts describe how much noise levels are projected to increase over existing conditions with the development of the proposed Project and other foreseeable projects. The Project's construction activities would not result in a substantial temporary increase in ambient noise levels. Construction noise would be periodic and temporary, and it would cease upon completion of construction activities. Further, based on the noise analysis above, the Project's construction-related noise impacts would be less than significant. The Project would generate a significant amount of vehicle trips and would therefore not increase ambient noise levels resulting from mobile sources. Additionally, during operations, the Project would not consist of any uses other than a stormwater channel which would not require the use of machinery or otherwise generate noise. As such, the Project would not result in cumulatively significant impacts.

⁴⁰ Riverside County Airport Land Use Commission. 2004. *Riverside County Airport Land Use Compatibility Plan, Volume 1, Policy Document; Map BD-1*. <https://www.rcaluc.org/Portals/13/PDFGeneral/plan/newplan/07-%20Vol.%201%20Bermuda%20Dunes.pdf> (accessed November 2022).

⁴¹ City of Indio. 2019. General Plan Chapter 11. Noise. Page 11-4. <https://www.indio.org/home/showpublisheddocument/916/637874287886000000> (accessed February 2024).

4.14 POPULATION AND HOUSING

	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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

There are no residences located within the Project site and no residential development is proposed as part of the Project. The nearest residences are located within the Sun City Community to the north of the Project site. No part of the Sun City Community is within the boundaries of the Project site and will not be disturbed as part of 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)?

No Impact.

During construction, there would be a temporary increase in available contractor and construction jobs within the City of Indio. However, construction does not typically induce population growth within an area as the employment opportunities are temporary and cease following completion of construction. Additionally, the Project does not propose residential, commercial, or industrial developments that would provide more residences or employment opportunities within the area on an operational basis. The Project proposes improvements to the existing earthen drainage and flood control channel. As such, no impact would occur, and no mitigation is necessary.

b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

No Impact.

The Project does not propose the demolition of existing residences and would not affect any existing residences within the vicinity of the Project site. No people will be displaced, and no replacement housing will be required to facilitate the implementation of the Project. As such, no impact would occur, and no mitigation is necessary.

Mitigation Measures

No mitigation is necessary.

Cumulative Impacts

The Project would consist of improvements to an existing stormwater channel. The Project would not induce the growth of population nor require additional housing to be constructed. As such, the Project would not result in a significant cumulative impact related to population and housing.

4.15 PUBLIC SERVICES

	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
--	--------------------------------	--	------------------------------	-----------

Would the project:

a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

i) Fire protection?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ii) Police protection?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iii) Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
v) Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

Fire Protection

Fire protection services are provided by the Riverside County Fire Department (RCFD), in cooperation with CalFire, to the Project site. The nearest fire station to the Project site is RCFD Station 80 located at 81025 Ave 40, Indio, CA 92203, approximately one mile to the north. However, due to access limitations, fire services would be provided to the Project site via approximately 2.8 miles of surface roadways. Response times to the Project site from RCFD Station 80 would be less than 10 minutes.

Police

The Indio Police Department enforces local, state, and federal statutes to protect the general welfare of the community. The Chief of Police and three Divisions in the department administer enforcement. The police department uses multiple strategies to address crime. Some typical programs include: a police K-9 program, police dispatch, neighborhood watch programs, community outreach, and a Citizens Online Police reporting system.

The Indio Police Department is located at 46800 Jackson Street. The force currently consists of 62 sworn officers and 37 non-sworn staff for a total of 99 full-time staff. Indio Police currently participate in the California Law Enforcement Mutual Aid System, which is a component of the Standardized Emergency Management System. The Law Enforcement Mutual Aid System is used to restore order during emergencies and provide assistance to local agencies during other unusual events. Response times within the City may vary, depending on the location of the patrol car.

Schools

The Project site lies within the Desert Sands Unified School District (DSUSD). DSUSD consists of 19 elementary schools, 1 charter elementary school, 6 middle schools, 1 charter middle school, 4 comprehensive high schools, 2 continuation high schools, 1 alternative education school, preschool, and centralized administration. The nearest school to the Project site is Carrillo Ranch Elementary School

located at 43775 Madison Street, Indio, CA 92201, approximately 0.4 mile to the southwest of the Project site.

Parks

The City's Public Works Parks & Facilities Division is responsible for maintaining parks while the Desert Recreation District (DRD) is responsible for providing recreational facilities. In addition to the many golf courses and dog parks throughout the City, there are 15 existing City parks distributed throughout Indio. Each park provides a variety of amenities and services that encourage outdoor and family-oriented recreation. The nearest parks to the Project site are the Dog Park Sun City Shadow Hills Phase One, Burr Park, and Yucca Park. Dog Park Sun City Shadow Hills Phase One is located immediately adjacent to the Project site to the northwest. Burr Park is located at 42811 Burr Street, Indio, CA 92201, approximately 0.5 mile to the southwest and contains amenities such as basketball courts, playground equipment, and picnic grounds. Yucca Park is located at 43605 Yucca Street, Indio, CA 92201, approximately 0.8 mile to the southeast and contains amenities such as basketball courts, picnic grounds, playground equipment, and group shelter.

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, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:*

i) *Fire protection?*

Less than Significant Impact with Mitigation Incorporated.

ii) *Police protection?*

Less than Significant Impact with Mitigation Incorporated.

iii) *Schools?*

Less than Significant Impact.

iv) *Parks?*

Less than Significant Impact.

v) *Other public facilities?*

Less than Significant Impact.

The proposed project would not change existing demand for public services (e.g., fire and police protection, schools, parks, libraries, or health clinics) because the proposed project would serve existing communities and would not significantly or directly induce population growth. Lane closures and other potential traffic impacts caused by construction activities of the proposed project would have potential to impede emergency response to those areas, or to areas accessed via those routes. The Applicant, through their Contractor, would coordinate with local emergency service providers prior to lane or road closures to ensure adequate emergency access throughout the respective service areas through the completion of a Traffic Control Plan, as required by **MM TRA-1**. The Traffic Control Plan would identify roadways/lanes to be impacted, duration of the disruption, and the types and quantity of traffic control devices to be employed. The Traffic Control Plan would be prepared in accordance the City of Indio engineering standard INDIO-803 and with Part 6 of the California Manual of Temporary Traffic Controls for Construction and

Maintenance Work Zones of the California Manual of Uniform Traffic Control Devices. Proper implementation of the Traffic Control Plan and notification of roadway/lane closures would ensure that emergency access is maintained during construction. As such, **MM TRA-1** would apply to impacts 4.15(a)(i) and (ii). With the implementation of **MM TRA-1**, impacts would be less than significant. All other impacts would be less than significant.

Operations of the proposed Project would not alter emergency access. In addition, the operations and maintenance requirements for the proposed project would be minimal, and therefore would not result in an increase in the need for new staff from public protection services entities. As implementation of the proposed project would not change the demand for any public services, it would not require additional equipment or resources for those public service providers. The proposed project's operations would have a less than significant impact on public services, and no mitigation is necessary.

Mitigation Measures

No mitigation is necessary.

Cumulative Impacts

As previously stated, the Project would not change existing demand for public services as it consists of the improvements of infrastructure relating to an existing stormwater channel. As such, the Project would not contribute to a cumulatively significant impact to public services.

4.16 RECREATION

	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
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 would 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

As previously discussed in Section 4.15 Public Services, there are no parks within the boundaries of the Project site, however, there are parks within 1 mile of the Project site. None of these parks would be disturbed as a result of the implementation of the Project. According to the City’s General Plan, Avenue 42 is designated as a Class 4 Bikeway. The Class 4 bikeway would consist of a protected bike lane separated from the travel lanes of the roadway. However, Ave 42 is not currently built out to the extents of its delineated right of way.

- 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 would occur or be accelerated?***
No Impact.

- 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?***
No Impact.

The Project would not increase the demand for neighborhood or regional parks, or other recreational facilities. The project proposes the improvement of the existing Thousand Palms earthen drainage and flood control channel. No residential land uses are proposed as part of the project that would increase the use of existing recreational facilities and regional parks. No construction or expansion of other recreational facilities is required for project implementation. There would be no impacts to recreational facilities and no mitigation is required.

Mitigation Measures

No mitigation is necessary.

Cumulative Impacts

As previously stated, the Project would not increase the existing demand for parks and recreational features as it consists of the improvements of infrastructure relating to an existing stormwater channel. As such, the Project would not contribute to a cumulatively significant impact to recreational resources.

4.17 TRANSPORTATION

	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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 checked="" type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>
d) Result in inadequate emergency access?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Discussion

- a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?**

Less than Significant Impact.

The Project is anticipated to generate vehicular and truck traffic from construction activities lasting through the duration of the construction of the Project. It is not anticipated that vehicular or truck trips would be generated during daily operations of the Project. There would be occasional trips for maintenance operations that would be infrequent. There is no existing pedestrian or bicycle infrastructure along Avenue 42 or Madison Street. The Project would re-construct Avenue 42 and Madison Street in conformation with the City of Indio General Plan Mobility Element. While Avenue 42 is designated as a Class IV Cycle Track, these improvements would not be provided at this time as the Cycle Track would be isolated and not connected to any existing infrastructure. There is no existing transit line that operates along Avenue 42 or Madison Street, nor are there any transit lines proposed in the Mobility Element of the City of Indio General Plan for this section of Avenue 42. While the Project would generate some trips during construction, and infrequent vehicle trips during operations, there would be a less than significant impact due to the temporary nature of construction impacts. No mitigation is necessary.

- b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?**

No Impact.

Pursuant to Senate Bill 743, vehicle miles traveled (VMT) is used as the basis of significance of transportation impacts under CEQA. The Project would not generate trips during operations in a frequent manner. Nor does the Project consist of a land use that is known to generate trips or VMT, such as a retail/commercial center, warehouse, or residential use. The Project consists of a stormwater channel and would not be a destination nor have a customer demand. As such, it would not generate VMT, and no impact would occur.

c) *Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?*

Less than Significant Impact.

Overall, the Project would improve the safety for motorists along Avenue 42 as they cross the Channel. In its existing conditions Avenue 42 is subjected to rapid and dangerous changes in grade. As previously stated, the Project would realign the vertical alignment of Avenue 42 and “smooth” the grade changes. These “smoothed” grade changes would provide for safer travel along Avenue 42 and improve safety. However, these improvements would not be realized until construction is finalized. During construction, trucks would be entering and exiting roadways during construction operations of the Channel. The Project would be required to complete a construction traffic plan which would identify roadway closures, temporary restriping, use of flaggers, detours, and other traffic control devices which would be employed during construction, in coordination with and with approval by the City Traffic Engineer. These control devices would be used to ensure the safety of construction workers and members of the public alike. This plan would include notification requirements, such as signage posted along the impacted roadways, prior to the commencement of construction. This would provide motorists advanced warning of road closures or of the presence of construction.

Operationally, there would be no incompatible uses as the proposed uses of the Project are identical to that which is existing on the Project site. Additionally, the geometric design of Madison Street and Avenue 42 would be improved and would provide for safer travel along these roadways. Overall, there would be a less than significant impact, and no mitigation is necessary.

d) *Result in inadequate emergency access?*

Less than Significant Impact with Mitigation Incorporated.

The Project would not alter the City of Indio’s circulation plan by permanently removing roadways or by severing connectivity to other roadways within the vicinity of the Project. During construction, there may be temporary lane or full roadway closures along Madison Street and Avenue 42. Should full roadway closures occur, detour notification and signage would be required to be posted along the detour route. The Project would coordinate with all City emergency services and communicate the construction schedule, providing emergency services with adequate advanced notice for temporary lane/road closures. These impacts would be temporary and would cease after Project construction. However, to ensure the adequate maintenance of emergency access, the Project would prepare and implement a traffic control plan through the incorporation of **MM TRA-1**. Operationally, the Project does not consist of uses that could cause inadequate emergency access for the community. The Channel is an existing and known feature in the City of Indio, and its operation would not impair emergency access to adjacent uses. With the incorporation of **MM TRA-1**, the Project would have a less than significant impact with regarding to emergency access due to temporary impacts which could occur during construction.

Mitigation Measures

MM TRA-1 Prior to construction, CVWD shall require its Construction Contractor to implement an approved Traffic Control Plan, to the satisfaction of the CVWD construction inspector and the City. The components of the Traffic Control Plan shall include:

- Identification of construction staging site locations and potential road closures,
- Alternate routes of traffic detours, including emergency response contact information,
- Planned routes for construction-related vehicle traffic (haul routes), and

- Identification of alternative safe routes to maintain pedestrian safety during construction.

CVWD's Project Manager shall coordinate with the police, fire, and other emergency services to alert these entities about potential construction delays, project alignment, and construction schedule. CVWD shall minimize the duration of disruptions/closures to roadways and critical access points for emergency services. The Traffic Control Plan shall provide for traffic control measures including flag persons, warning signs, lights, barricades, and cones to provide safe passage of vehicular, bicycle and pedestrian traffic and access by emergency responders. All construction personnel shall be briefed on project-specific circumstances relating to worker and public safety with regards to traffic control. The Traffic Control Plan shall be submitted to CVWD's Project Manager and construction inspector for review and approval prior to construction.

CVWD's Construction Inspector shall have the construction schedule and Traffic Control Plan reviewed by the County of Riverside to ensure construction of the proposed project does not conflict with construction activities associated with other construction projects that may be occurring at the same time in the vicinity.

Cumulative Impacts

As discussed in the preceding analysis, the Project has less than significant impacts relating to conflicts with the circulation system, roadway design hazards, and emergency access. Other projects in the area would also be required to meet standard requirements to provide transportation facilities that accommodate both pedestrian, bicycle, and vehicle travel. Therefore, the Project would not result in impacts that are cumulatively considerable.

4.18 TRIBAL CULTURAL RESOURCES

	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
--	--------------------------------	--	------------------------------	-----------

Would the project:

- a) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:
 - i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?

	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--	--------------------------	-------------------------------------	--------------------------	--------------------------
 - ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public 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 CVWD notified relevant California Native American Tribes per the requirements of Assembly Bill 52 (AB 52) on February 20, 2024, to initiate Tribal Consultation. Under AB 52, tribes have 30 days to notify the CVWD if consultation is requested. A total of 12 Tribes were contacted, which include the following: Agua Caliente Band of Cahuilla Indians (ACBCI), Augustine Band of Cahuilla Indians (ABCI), Cabazon Band of Mission Indians (CBMI), Cahuilla Band of Indians (CBI), Los Coyotes Band of Cahuilla and Cupeno Indians (LCBCCI), Morongo Band of Mission Indians (MBMI), Ramona Band of Cahuilla Indians (RBCI), Santa Rosa Band of Mission Indians (SRBMI), Soboba Band of Luiseno Indians (SBLI), Torres Martinez Desert Cahuilla Indians (TMDCI), Twenty-Nine Palms Band of Mission Indians (TNPBMI), and the Quechan Tribe of the Fort Yuma Reservation (QTFYR).

During the consultation period, a total of four Tribes responded: CBI responded on February 27, 2024, and MBMI on March 18, 2024, indicating that they either did not want consultation or had no questions. ACBCI responded on February 27, 2024, indicating that consultation was requested. Consultation occurred with ACBCI on April 17, 2024. CBMI responded on March 14, 2024, requesting consultation, which subsequently occurred on May 1, 2024. CBMI reviewed and concurred with the proposed mitigation/conditions of approval for the Project and requested consultation be concluded on October 23, 2024. As of the circulation of this Draft IS/MND, Tribal Consultation is still ongoing. All Tribal Consultation letters sent to date are available as **Appendix E**.

a) ***Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:***

i) ***Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?***

Less than Significant Impact with Mitigation Incorporated.

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?***

Less than Significant Impact with Mitigation Incorporated.

Refer to **Section 4.5, Cultural Resources** for a discussion on resources which are listed or eligible for listing in the CRHR, or in a local register of historical resources as defined in Public Resource Code Section 5020.1(k). As a part of the pedestrian surveys conducted for the CRA, no potential tribal resources were found to be listed or eligible in either listing/definition for the CRHR.

The CVWD initiated Tribal Consultation for the Project on February 20, 2024, with interested California tribes consistent with Assembly Bill (AB) 52. The CVWD requested consultation with the previously mentioned tribes. During the consultation period, a total of four Tribes responded: CBI responded on February 27, 2024, and MBMI on March 18, 2024, indicating that they either did not want consultation or had no questions. ACBCI responded on February 27, 2024, indicating that consultation was requested. Consultation occurred with ACBCI on April 17, 2024. CBMI responded on March 14, 2024, requesting consultation, which subsequently occurred on May 1, 2024. CBMI reviewed and concurred with the proposed mitigation/conditions of approval for the Project and requested consultation be concluded on October 23, 2024. Mitigation measures were updated based on input from ACBCI and CBMI. As of the date of circulation of this Draft IS/MND, Tribal Consultation is still ongoing with ACBCI. As consultation is still ongoing, the tribes which have yet to respond, ABCI, LCBCCI, RBCI, SRBMI, SBLI, TMDCI, TNPBMI, and QTFYR, may have further comments following the release of the Draft IS/MND for public review.

As described in Section 4.5, Cultural Resources, there are historical cultural and archaeological resources which have been identified within the vicinity of or within the boundaries of the Project site. As a result, **MM CUL-1** and **MM CUL-2** would be implemented – these mitigations would similarly apply to this resource area. These would ensure that Tribal Cultural Resources would not be impacted by the Project and impacts would be less than significant with the incorporation of mitigation measures.

Mitigation Measures

MM CUL-1 and **MM CUL-2** detailed above.

Cumulative Impacts

Tribal cultural impacts associated with development projects are generally site-specific. The potential impacts for the Project to have on existing tribal cultural resources was determined to be less than

significant with the implementation of mitigation measures. If tribal cultural resources are encountered during Project implementation, the appropriate mitigation measures would be implemented to reduce impacts to less than significant levels. Considering the Project would not contribute to significant impacts to tribal cultural resources on-site and that tribal cultural impacts are typically site-specific; the Project would not have considerably cumulatively impacts to tribal cultural resources.

4.19 UTILITIES AND SERVICE SYSTEMS

	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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 checked="" type="checkbox"/>	<input 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

Water Supply

The Coachella Valley Water District (CVWD) and the Indio Water Authority (IWA) provide domestic water service in the vicinity of the Project. The Project site is bisected by the boundary between the CVWD and IWA service areas, this boundary runs in a north-south manner along Madison Street. All CVWD drinking water comes from the Coachella Valley Whitewater groundwater basin, water used for irrigation primarily comes from the Colorado River via the 123-mile Coachella Canal. CVWD also uses the Colorado River to artificially replenish the aquifer at four sites throughout the Coachella Valley. IWA's current water supply is entirely groundwater. The Project does not propose operational uses that would require connection to or use of the water supply system.

Wastewater

Two wastewater treatment plants (WWTPs) service the City of Indio. One is owned by Valley Sanitary District (VSD), and one is owned by CVWD. VSD treats approximately 96 percent of Indio's wastewater and CVWD treats the remainder. The CVWD WWTP is located at Avenue 38 and Madison Street in Indio, which is a tertiary treatment facility, and the effluent produced is recycled for non-potable uses for CVWD customers.

Effluent from VSD is discharged into the CVSC, but a small percentage goes to tribal lands for irrigation. The VSD existing wastewater collection system consists of approximately 243 miles of sanitary sewer line, five active pump stations, and a wastewater treatment plant. The effluent water supply can be of beneficial

use on golf courses, public parks and landscaping around public buildings. Recycled water is primarily used for landscape irrigation with excess volumes being utilized for groundwater recharge.⁴²

As of 2014, VSD's WWTP treats approximately 6.5 million gallons per day (MGD) of wastewater. Three individual processes treat wastewater: activated sludge, oxidation ponds, and biological wetlands. The activated sludge process treats approximately 6.0 MGD and has a maximum treatment capacity of 7.5 MGD. The oxidation ponds receive all waste solids with an average and maximum treatment capacity of 2.5 MGD. The water leaving the oxidation ponds enters the biological wetlands. The wetlands treat approximately 1.0 MGD, which is also its maximum capacity. The wetlands, more popularly known as the Coachella Valley Wild Bird Center (CVWBC), also provide a migratory and resident waterfowl and shorebird habitat.

The Project does not propose any operational uses that would require connection to or use of the sanitary sewer network and related infrastructure.

Stormwater

Local drainage facilities within the City are generally owned and maintained by the City. They generally convey runoff from local streets and lots to regional drainage facilities such as the CVSC operated and maintained by the CVWD. The CVSC is the primary drainage course of the Coachella Valley, extending from north Palm Springs to the Salton Sea. The Project currently proposes improvements to a portion of the tributaries of the CVSC to improve resilience, capacity, and flood control.

Electric and Natural Gas

In the Coachella Valley and in the City of Indio, IID provides electric power. IID maintains and operates the transmission and distribution infrastructure necessary to provide electricity to users throughout the City. High voltage transmission lines up to 500 kilovolts cross the Valley in a general east-west direction north of I-10.

Natural gas is typically found in association with petroleum deposits underground. No natural gas refineries are located in the vicinity of the Project, and Southern California Gas Company (SoCalGas) provides natural gas to the City. Distribution lines for natural gas are located throughout the City of Indio and are typically high-pressured.

The Project does not propose operational uses that would require connection to or use of electric or natural gas utilities. Refer to *Section 4.6, Energy* for more information.

- 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?***

Less than Significant Impact with Mitigation Incorporated.

The Project would not require or result in the construction of new or expanded water, water treatment, electric power, natural gas, or telecommunications facilities. Additionally, the Project does not propose the development of any residential or other uses that would increase demand for these services. The Project proposes the improvement of the existing earthen stormwater drainage and flood control channel. While no

⁴² City of Indio. 2019. FEIR for the City of Indio General Plan Update. Page 4.16-8.
<https://www.indio.org/home/showpublisheddocument/924/637874293008870000> (accessed December 2024).

new stormwater systems or facilities would be constructed as part of Project implementation, the existing Channel would be reinforced with concrete side slopes, the bed of the channel would be graded and flow path slopes improved, and concrete drop structures installed to provide adequate stormwater conveyance for the 100-year storm event.

Approximately 5,750 LFT of improvements will be made along the existing Channel. Concrete side slopes would be constructed to have a sloped ratio of 1.5:1. Overall, the depth of the channel would be increased to improve stormwater drainage and flood control to ensure proper management and accommodation of the 100-year storm event flows. In addition, a soil layer will be placed over the top of the concrete side slopes. The soil layer will have a sloped ratio of 3:1 from the top of the channel banks to the channel invert. The purpose of the soil layer is to provide a graffiti protection barrier over the proposed concrete lining.

While Project implementation would require these improvements to stormwater infrastructure, it is the goal of the Project to improve this infrastructure. As it is a goal of the Project to improve this infrastructure, rather than a consequence of Project implementation, impacts would be less than significant, and no mitigation is necessary.

Regarding electrical infrastructure, the Project would require a shoofly to prevent disruptions to power and electrical services in the area. A shoofly is a temporary short routing of a linear service, such as a road, railroad, water main, or power line, around a small site or obstruction. This shoofly would be constructed by IID and would exist outside of the existing Avenue 42 right-of-way. The shoofly would be deconstructed once the permanent steel poles are constructed and energized. While the shoofly would be located outside of the Project footprint, the sensitivity for cultural and biological resources in the immediate vicinity of the Project are low and would be consistent with the location of the shoofly. Nonetheless, the Project would implement **MM BIO-1** and **MM CUL-2** to determine the presence or absence of sensitive resources. As such, impacts would be less than significant with the incorporation of mitigation measures.

b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

No Impact.

The Project does not propose the development of land uses that would require water supply, nor does it propose the future development of uses that may require connectivity to the water utility for operational uses. During construction, it is atypical for a temporary water connection be made with the utility to supply water for construction uses. Should a water hookup be made, the connection would be temporary and would be removed upon the completion of construction, however this is unlikely and not anticipated, and water would likely be trucked onto the Project site for construction use. As such, no impact is anticipated, and no mitigation is necessary.

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?

No Impact.

The Project does not propose the development of land uses that would require wastewater services, nor does it propose the future development of uses that may require connectivity to the sanitary system for operational uses. Temporary sanitary stations would be provided for use during construction and would not be connected to the sanitary system. As such, no impact is anticipated, and no mitigation is necessary.

- 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?***

Less than Significant Impact.

- e) ***Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?***

Less than Significant Impact.

Construction and implementation of the proposed project is not anticipated to generate a significant amount of solid waste. To the extent feasible, excavated soil would be reused on-site. The construction contractor(s) would be required to dispose of excavated soil and solid wastes in accordance with local solid waste disposal requirements.

Solid waste generation would be limited to construction-related activities and would not affect available solid waste disposal capacity in the region. No long-term solid waste generation would be associated with the proposed project. The waste generated during construction activities are required to be disposed of in accordance with all applicable federal, State, and local statutes and regulations. Therefore, impacts would be less than significant, and no mitigation is necessary.

Mitigation Measures

No mitigation is necessary.

Cumulative Impacts

For purposes of utilities and service systems, cumulative impacts are considered for projects located within the City. As discussed above, all Project impacts to utilities and service systems would be less than significant in consideration of compliance with existing laws, ordinances, regulations, and standards. Therefore, impacts are not anticipated to be cumulatively considerable.

4.20 WILDFIRE

	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

As previously discussed in *Section 4.9, Hazards and Hazardous Materials*, according to Cal Fire the Project site is not located within an area designated as a Very High FHSZ. Fire protection services are provided by the Riverside County Fire Department (RCFD), in cooperation with Cal Fire, to the Project site. The nearest fire station to the Project site is RCFD Station 80 located at 81025 Ave 40, Indio, CA 92203, approximately one mile to the north. However, due to access limitations, fire services would be provided to the Project site via approximately 2.8 miles of surface roadways. Response times to the Project site from RCFD Station 80 would be less than 10 minutes.

a) *Substantially impair an adopted emergency response plan or emergency evacuation plan?*

Less than Significant Impact with Mitigation Incorporated.

Construction activities would take place within the public rights-of-way, as well as on private and public lands. Potential staging areas would include vacant private and public lands, segments of closed traffic lanes, and portions of the Project site. As the Project proposes the reconstruction of roadways which would require temporary road closures there would be impacts to emergency services utilizing these roadways for routes. As previously discussed in **Section 4.9, Hazards and Hazardous Materials**, the Project would coordinate road closures with local emergency response services to ensure adequate emergency access throughout the duration of Project construction. Additionally, as described in Sections 4.15 and 4.17, **MM TRA-1** would be implemented requiring the preparation and implementation of a Traffic Control Plan. Operational uses of the Project would not impair any emergency plans. Impacts would be less than significant, and no mitigation is necessary.

- b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?**

Less than Significant Impact.

The proposed project is located within Local Responsibility Area and is designated as non-VHFHSZ. Additionally, the Project does not propose any development that would accommodate occupation of structures or facilities. Impacts would be less than significant, and no mitigation is necessary.

- c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?**

Less than Significant Impact.

The Project proposes the redevelopment and improvement of the existing earthen Channel and does not require the installation or maintenance of associated infrastructure that may exacerbate fire risk or result in temporary or ongoing impacts to the environment. The Project proposes the reconstruction of multiple roadways to accommodate implementation of the Project. These roadways would be reinstalled with identical width while the vertical profile would be altered. These changes to the vertical profile of the roadways would not increase or exacerbate fire risks. Operational and maintenance activities associated with the Project would include inspection of the infrastructure, clearing of any vegetation, and minor repairs as needed. These activities would not exacerbate fire risk. Impacts would be less than significant, and no mitigation is necessary.

- 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?**

Less than Significant Impact.

The Project proposes the improvement of the existing Channel and would improve the overall flood control and stormwater drainage within the Project vicinity and region. The Project area is surrounded by residential land uses, vacant lands, and irrigated agriculture. The residential land uses near the Project are upstream of the Project and would not be exposed to significant risks. Due to the nature of the Project as a flood control and stormwater drainage channel, the Project is generally the low point and point of confluence for surface flows and catchments in the vicinity of the Project. The Project would be designed to accommodate the 100-year storm event and would be regularly maintained and inspected to ensure adequate slope stability is provided. The drainage conditions proposed after project implementation would be an improvement from the existing conditions of the Project site. As such, impacts would be less than significant, and no mitigation is necessary.

Mitigation Measures

Refer to **MM TRA-1** in Section 4.17.

Cumulative Impacts

Projects have the potential to be cumulatively considerable, when evaluated in the context of other past, present or reasonably foreseeable projects that make a cumulative contribution to impacts. Similar to the Project, cumulative development occurring within the vicinity and similar FHSZs would be subject to risk of

wildfire hazards. Cumulative projects would also be subject to comply with existing federal, State, and local regulatory framework as well as the latest CBC and California Fire Code regulations and standards for fire safety. However, the Project consists of the improvement of an existing stormwater channel and within an existing location and would not further exacerbate risks associated with wildfire. As such, the Project would not result in cumulatively significant impacts related to wildfire.

4.21 MANDATORY FINDINGS OF SIGNIFICANCE

	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
Does the project:				
a) Have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input 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 type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

a) ***Have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?***

Less than Significant Impact with Mitigation Incorporated.

All impacts to the environment, including impacts to fish and wildlife habitats, fish and wildlife populations, plant and animal communities, rare and endangered plants and animals, and historical and pre-historical resources were evaluated as part of this Draft IS/MND. Throughout this Draft IS/MND, where impacts were determined to be potentially significant, mitigation measures have been proposed to reduce those impacts to less than significant levels. The current conditions of the Project site do not substantially support plant or animal communities in the Project area. Accordingly, with incorporation of the mitigation measures recommended throughout this IS/MND (MMs BIO-1 and BIO-2 and MMs CUL-1 through CUL-5), the Project would not substantially degrade the quality of the environment and impacts would be less than significant.

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)?***

Less than Significant Impact.

As discussed throughout this Draft IS/MND, implementation of the Project has the potential to result in effects to the environment that are individually limited and may be cumulatively considerable in specific

areas. In all instances where the proposed Project has the potential to contribute to a cumulatively considerable impact to the environment, mitigation measures have been imposed to reduce potential effects to less than significant levels. The Project is not considered growth-inducing, as defined by State CEQA Guidelines (<http://ceres.ca.gov/ceqa/guidelines/>). The potential cumulative environmental effects of implementing the Project would be less than considerable and therefore, a less than significant impact would occur in this regard.

c) *Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?*

Less than Significant Impact.

The Project's potential to result in environmental effects that could adversely affect human beings, either directly or indirectly, has been discussed throughout this Draft IS/MND. Construction and operation of the Project would not involve any activities that would result in environmental effects which would cause substantial adverse effects on human beings, either directly or indirectly, and therefore a less than significant impact would occur in this regard.

Mitigation Measures

Refer to Mitigation Measures **BIO-1**, **BIO-2**, and **CUL-1** through **CUL-5** above.

5.0 REPORT PREPARATION

5.1 Report Authors

This report was prepared by the Coachella Valley Water District, Q3 Consulting, and Kimley-Horn and Associates. Staff from the agency and companies that were involved include:

Coachella Valley Water District

- Carlos Huerta, Environmental Resources Analyst
- William Patterson, Environmental Services Program Supervisor
- Joanne Le, Director of Environmental Services
- Mario Camacho, Engineer II
- Solan Watts, Associate Biologist

Q3 Consulting

- John McCarthy, P.E., Principal

Kimley-Horn and Associates, Inc.

- Kevin Thomas, Project Director
- Meghan D. Karadimos, Project Manager
- Achilles Malisos, Air Quality, Noise, Greenhouse Gas Emissions
- Alex Pohlman, EIT, LEED AP, Air Quality, Noise, Greenhouse Gas Emissions
- Cameron Bauer, Environmental Analyst
- Miles Eaton, P.E., Environmental Analyst
- Amanda McCallum, Document Production

SWCA Environmental Consultants

- Jacqueline Bowland Worden, Lead Biologist
- Susan Zamudio-Gurrola, M.H.P.
- Liz Denniston, M.A., RPA

Geocon West, Inc.

- Lisa A. Battiqato, P.E.
- Andrew Shoashekan, P.E.
- Joseph J. Vettel, P.E.

5.2 References

General

- California Department of Conservation. 2017. *California Important Farmland Finder*. Retrieved from: <https://maps.conservation.ca.gov/DLRP/CIFF/>.
- California Department of Forestry and Fire Protection. 2022. *FHSZ Viewer*. Retrieved from: <https://egis.fire.ca.gov/FHSZ/>.
- California Department of Transportation. 2022. *California State Scenic Highway System Map*. Retrieved from: <https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aaca>.
- California Geologic Survey. 2022. *Earthquake Zones of Required Investigation*. Retrieved from: <https://maps.conservation.ca.gov/cgs/EQZApp/app/>.
- California State Water Resources Control Board. ND. *HUC Watersheds*. Retried from: <https://gispublic.waterboards.ca.gov/portal/home/webmap/viewer.html?useExisting=1&layers=b6c1bab9acc148e7ac726e33c43402ee>.
- City of Indio. 2019. *FEIR for the City of Indio General Plan Update*. Page 4.3-1. Retrieved from: <https://www.indio.org/home/showpublisheddocument/924/637874293008870000>.
- Coachella Valley Conservation Commission. 2007. *Recirculated Final Coachella Valley Multiple Species Habitat Conservation Plan Natural Community Conservation Plan: Figure 4-1: Conservation Areas*. Retrieved from: https://cvmshcp.org/Plan-Documents/_system_files/d4-1.pdf.
- County of Riverside. 2019. *Riverside County Mapping Portal: Liquefaction*. Retrieved from: <https://gisopendata-countyofriverside.opendata.arcgis.com/datasets/8b4d6c0ed6154902b03be41faebdf588/explore?location=33.744912%2C-116.243661%2C15.00>.
- FEMA. ND. *FEMA Flood Map Service Center*. Retrieved from: <https://msc.fema.gov/portal/advanceSearch#searchresultsanchor>.
- Historic Aerials. ND. *Historic Aerials*. Retrieved from: <https://www.historicaerials.com/viewer>.
- Riverside County. 2021. *Western Coachella Valley Area Plan*. Retrieved from: https://planning.rctlma.org/Portals/14/genplan/2021/WCVAP_6.29.21.pdf?ver=2021-07-01-164904-547.
- Riverside County Airport Land Use Commission. 2004. *Riverside County Airport Land Use Compatibility Plan, Volume 1, Policy Document; Map BD-1*. Retrieved from: <https://www.rcaluc.org/Portals/13/PDFGeneral/plan/newplan/07-%20Vol.%201%20Bermuda%20Dunes.pdf>.

Aesthetics

California Department of Transportation. ND. *California State Scenic Highway System Map*. Retrieved from: <https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aaca>.

Agriculture/Forestry Resources

California Department of Conservation. 2017. *State of California Williamson Act Contract Land*. Retrieved from: [https://planning.lacity.org/eir/HollywoodCenter/Deir/ELDP/\(E\)%20Initial%20Study/Initial%20Study/Attachment%20B%20References/California%20Department%20of%20Conservation%20Williamson%20Map%202016.pdf](https://planning.lacity.org/eir/HollywoodCenter/Deir/ELDP/(E)%20Initial%20Study/Initial%20Study/Attachment%20B%20References/California%20Department%20of%20Conservation%20Williamson%20Map%202016.pdf).

California Department of Conservation. 2018. *California Important Farmland Finder*. Retrieved from: <https://maps.conservation.ca.gov/DLRP/CIFF/>.

California Department of Fish and Wildlife. 2016. *Biogeographic Information and Observation System*. Retrieved from: <https://apps.wildlife.ca.gov/bios/?bookmark=940>.

City of Indio. ND. *Indio Public GIS Layers*. Retrieved from: <https://gis.indio.org/development/gismap/>.

Geology/Soils

City of Indio. 2019. *Final Environmental Report for the City of Indio General Plan Update; Page 4.6-3*. Retrieved from: <https://www.indio.org/civicax/filebank/blobdload.aspx?BlobID=29168>.

City of Indio. 2019. *Final Environmental Report for the City of Indio General Plan Update; Figure 4.6-4*. Retrieved from: <https://www.indio.org/civicax/filebank/blobdload.aspx?BlobID=29168>.

City of Indio. 2019. *Final Environmental Report for the City of Indio General Plan Update; Figure 4.6-20*. Retrieved from: <https://www.indio.org/civicax/filebank/blobdload.aspx?BlobID=29168>.

City of Indio. 2019. *General Plan; Page 10-9*. Retrieved from: <https://www.indio.org/civicax/filebank/blobdload.aspx?t=47082.25&BlobID=29234>.

City of Indio. 2019. *General Plan; Page 8-12*. Retrieved from: <https://www.indio.org/civicax/filebank/blobdload.aspx?t=47082.25&BlobID=29234>.

United States Natural Resources Conservation Service. 2022. *Web Soil Survey*. Retrieved from: <https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>.

Greenhouse Gas Emissions

Intergovernmental Panel on Climate Change. 2013. *Carbon and Other Biogeochemical Cycles*. In: *Climate Change 2013: The Physical Science Basis, Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change*. Retrieved from: <https://www.ipcc.ch/report/ar5/wg1/>.

Hazards and Hazardous Materials

California Environmental Protection Agency. 2022. *Hazardous Waste and Substances Site List*. Retrieved from:

https://www.envirostor.dtsc.ca.gov/public/search.asp?cmd=search&reporttype=CORTESE&site_type=CSITES,OPEN,FUDS,CLOSE&status=ACT,BKLG,COM&reporttitle=HAZARDOUS+WASTE+AND+SUBSTANCES+SITE+LIST.

California State Water Resources Control Board. 2022. *GeoTracker*. Retrieved from: <https://geotracker.waterboards.ca.gov/map/?CMD=runreport&myaddress=city+of+indio>.

Crown Aero. ND. *Bermuda Dune Airport VFR Traffic Pattern*. Retrieved from: <https://crownaero.com/noise-abatement/>.

Riverside County Airport Land Use Commission. 2004. *Individual Airport Policies and Compatibility Maps: Bermuda Dunes Airport*. Retrieved from: <https://www.rcaluc.org/Portals/13/PDFGeneral/plan/newplan/07-%20Vol.%201%20Bermuda%20Dunes.pdf>.

Hydrology and Water Quality

Albert A. Webb Associates. 2021. *Preliminary Design Report Thousand Palms Channel, Sun City Shadow Hills to Coachella Valley Stormwater Channel*.

Q3 Consulting. 2025. *Basis of Design Report: Thousand Palms Channel Improvement Project (Sun City Shadow Hills to the CVSC)*.

Land Use/Planning

City of Indio. 2019. *General Plan; Figure 8-2*. Retrieved from: <https://www.indio.org/civicax/filebank/blobdload.aspx?t=47082.25&BlobID=29234>.

Noise

Riverside County Airport Land Use Commission. 2004. *Riverside County Airport Land Use Compatibility Plan, Volume 1, Policy Document; Map BD-1*. Retrieved from: <https://www.rcaluc.org/Portals/13/PDFGeneral/plan/newplan/07-%20Vol.%201%20Bermuda%20Dunes.pdf>.

FTA. 2018. *Transit Noise and Vibration Impact Assessment Manual; Equation 7-3, Page 185*. Retrieved from https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf.

Utilities and Service Systems

City of Indio. 2019. *FEIR for the City of Indio General Plan Update*. Page 4.16-8. Retrieved from: <https://www.indio.org/home/showpublisheddocument/924/637874293008870000>.